EXHIBIT K

PART 2

Figure 11: 2030 No Build Afternoon Peak Hour Traffic Conditions

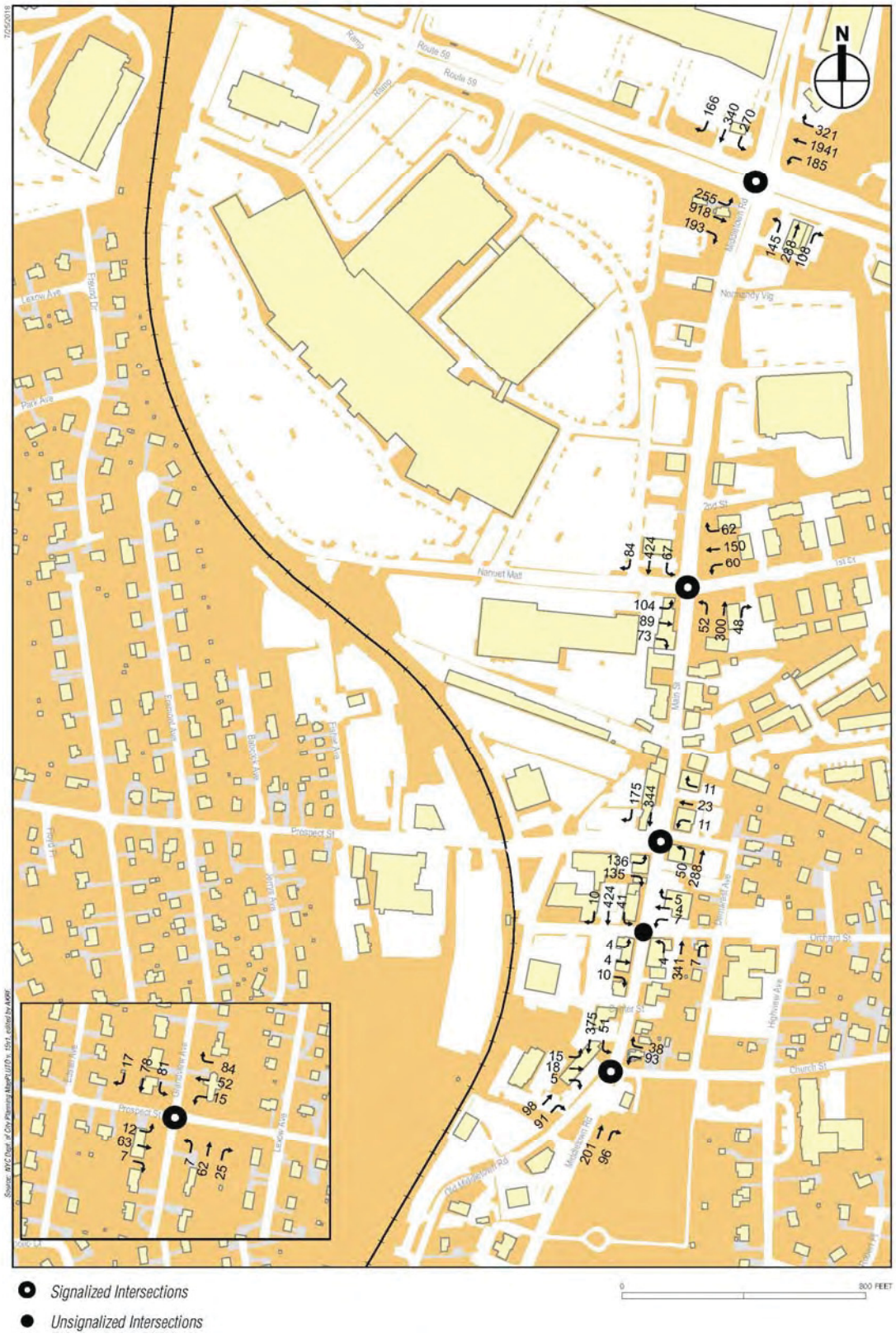


Table 25: 2018 Existing and 2030 No Build Conditions LOS Analysis

	Weekday AM								Weekday PM							
	2018 Existing				2030 No Build				2018 Existing				2030 No Build			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Signalized Intersections																
NYS Route 59 & N. Middletown/S. Middletown Road																
Eastbound	L	0.39	47.1	D	L	0.40	47.7	D	L	0.59	48.4	D	L	0.57	48.5	D
	TR	0.53	28.4	C	TR	0.57	29.6	C	TR	0.73	35.0	D	TR	0.79	37.9	D
Westbound	L	0.44	44.9	D	L	0.45	45.4	D	L	0.52	48.0	D	L	0.54	48.5	D
	T	0.71	29.2	C	T	0.82	33.6	C	T	1.25	149.7	F	T	1.34	187.1	F
	R	0.20	24.8	C	R	0.23	25.9	C	R	0.64	38.8	D	R	0.69	41.0	D
Northbound	L	0.63	52.2	D	L	0.65	53.2	D	L	0.65	53.6	D	L	0.68	54.7	D
	T	0.60	46.0	D	T	0.62	46.4	D	T	0.64	46.8	D	T	0.66	47.0	D
	R	0.38	19.3	B	R	0.39	19.3	B	R	0.30	17.3	B	R	0.31	17.1	B
Southbound	L	0.42	36.1	D	L	0.44	36.8	D	L	0.44	39.3	D	L	0.46	39.7	D
	TR	0.61	41.0	D	TR	0.63	41.8	D	TR	0.83	52.1	D	TR	0.85	54.0	D
	Intersection		33.2	C	Intersection		35.3	D	Intersection		82.0	F	Intersection		97.3	F
Main Street & Market Street / 1st Street																
Eastbound	L	0.16	29.9	C	L	0.15	28.4	C	L	0.43	28.1	C	L	0.45	28.4	C
	T	0.27	43.3	D	T	0.27	43.0	D	T	0.27	35.4	D	T	0.27	35.4	D
	R	0.10	30.6	C	R	0.10	29.6	C	R	0.19	25.1	C	R	0.19	25.1	C
Westbound	L	0.23	29.9	C	L	0.24	29.9	C	L	0.20	24.1	C	L	0.20	24.1	C
	TR	0.45	47.4	D	TR	0.48	47.8	D	TR	0.82	63.2	E	TR	0.84	64.7	E
Northbound	L	0.04	3.9	A	L	0.04	4.1	A	L	0.12	8.2	A	L	0.14	8.6	A
	TR	0.41	9.1	A	TR	0.44	10.0	B	TR	0.42	17.3	B	TR	0.46	18.4	B
Southbound	L	0.06	7.8	A	L	0.07	8.0	A	L	0.13	11.3	B	L	0.15	11.5	B
	T	0.30	13.1	B	T	0.32	13.6	B	T	0.49	22.5	C	T	0.53	23.7	C
	R	0.04	6.9	A	R	0.05	7.0	A	R	0.09	8.6	A	R	0.10	8.6	A
	Intersection		16.4	B	Intersection		16.9	B	Intersection		27.6	C	Intersection		28.4	C
Main Street & Prospect Street / William Avenue																
Eastbound	L	0.74	52.0	D	L	0.68	45.3	D	L	0.62	47.5	D	L	0.64	48.2	D
	R	0.26	7.9	A	R	0.26	7.4	A	R	0.44	9.2	A	R	0.45	8.9	A
Westbound	LTR	0.12	29.7	C	LTR	0.12	29.0	C	LTR	0.15	33.5	C	LTR	0.16	33.1	C
Northbound	LT	0.22	9.5	A	LT	0.24	10.0	B	LT	0.27	6.3	A	LT	0.29	6.7	A
Southbound	TR	0.37	4.6	A	TR	0.40	5.4	A	TR	0.42	4.6	A	TR	0.45	4.8	A
	Intersection		16.8	B	Intersection		15.8	B	Intersection		12.4	B	Intersection		12.7	B
Old Middletown Road/ Main Street & Church Street																
Eastbound	LTR	0.20	46.4	D	LTR	0.20	46.7	D	LTR	0.31	48.6	D	LTR	0.32	48.7	D
Westbound	LTR	0.34	5.4	A	LTR	0.37	6.7	A	LTR	0.63	23.1	C	LTR	0.65	24.6	C
Northbound	T	0.14	13.7	B	T	0.15	13.9	B	T	0.22	15.7	B	T	0.23	16.0	B
	R	0.06	14.1	B	R	0.06	14.2	B	R	0.13	15.3	B	R	0.13	15.5	B
Northeast-bound	LR	0.74	54.8	D	LR	0.77	56.2	E	LR	0.75	55.4	E	LR	0.78	57.1	E
Southbound	L	0.05	10.5	B	L	0.05	10.8	B	L	0.09	13.4	B	L	0.10	13.8	B
	T	0.20	10.1	B	T	0.21	10.4	B	T	0.38	14.9	B	T	0.41	15.7	B
	Intersection		24.6	C	Intersection		25.2	C	Intersection		24.9	C	Intersection		25.8	C
Unsignalized Intersections																
Grandview Avenue & Prospect Street																
Eastbound	L	0.13	8.4	A	L	0.14	8.5	A	L	0.13	8.6	A	L	0.14	8.8	A
Westbound	L	0.10	8.0	A	L	0.11	8.1	A	L	0.22	8.8	A	L	0.24	9.0	A
Northbound	L	0.12	8.0	A	L	0.13	8.1	A	L	0.15	8.5	A	L	0.16	8.7	A
Southbound	L	0.21	8.3	A	L	0.22	8.4	A	L	0.26	9.5	A	L	0.28	9.7	A
Main Street & Orchard Street W/ Orchard Street																
Eastbound	L	0.02	13.0	B	L	0.02	13.5	B	L	0.06	15.1	C	L	0.06	15.7	C
Westbound	L	0.04	12.1	B	L	0.05	12.3	B	L	0.06	17.1	C	L	0.07	18.2	C
Northbound	L	0.00	7.8	A	L	0.00	7.8	A	L	0.00	8.2	A	L	0.00	8.3	A
	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A
Southbound	L	0.01	7.9	A	L	0.01	7.9	A	L	0.04	8.1	A	L	0.04	8.2	A
	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service
Indicates notable deterioration in operating conditions

Existing Crash Data

Table 26 summarizes the most recent 3 year's traffic crash data for each of the Study Area intersections compiled from NYSDOT records for the period of January 1, 2015 through December 31, 2017 (see Appendix F for NYSDOT crash data records). Table 27 summarizes the most recent 3 year's traffic crash data for each of the Study Area non-intersection locations (i.e., road segments between Study Area intersections) compiled from the same NYSDOT records.

Intersection Crashes

As shown in Table 26, the greatest number of intersection crashes (48) occurred at the intersection of NYS Route 59 and N. Middletown/S. Middletown Road over the 3-year period studied. With an average of 16 crashes per year, this location would be considered as a High Accident Location (HAL) as defined in the Highway Capacity Manual (any location with 5 or more crashes in a 12-month period). The NYS Route 59 Safety Improvements project planned for completion in 2018/2019, includes improvements to signal timing, sidewalks, crosswalks and pedestrian signals.

The most commonly occurring type of crash at this location was rear end collisions. Overtaking/sideswiping and right angle left-turn, right-turn, and pedestrian/bicyclist collisions were other types of collisions, which occurred at the Study Area intersections. One fatality was reported at the intersection of Main Street/Old Middletown Road and Church Street in the records provided by NYSDOT during the 3-year time period studied.

Table 26: Study Area Crash Summary – Intersection Locations

Intersection	Number of Crashes		Crash Trend											
	Avg/ Yr	1/1/15 - 12/31/17	Personal Injuries	Fatalities	Reported	Non Reported	Overtaking /Sideswipe	Rear End	Right Angle	Left Turn (against other car)	Right Turn (with other car)	Ped/ Bike	Other	Unknown
NYS Rt 59 and Middletown Rd	16	48	35	0	48	0	14	17	7	3	0	0	11	1
Main St and Nanuet Mall	0.67	2	0	0	2	0	2	0	0	0	1	0	0	0
Main St and 1st Street	1.33	4	3	0	4	0	2	2	1	0	0	0	0	0
Main St and Normandy Village	1	3	4	0	3	0	0	1	0	1	0	0	1	0
Main St and Prospect Street	2.33	7	2	0	7	0	1	0	1	0	1	1	3	0
Main St and Orchard Street	1.67	5	2	0	5	0	2	0	2	1	0	0	1	0
Main St/Old Middletown Rd and Church St	1.33	4	3	1	4	0	0	1	0	0	0	0	3	0
Prospect St and Orchard St	0.33	1	1	0	1	0	0	0	0	0	0	0	1	0
Prospect St and Metro-North Parking Lot	0.33	1	4	0	1	0	0	1	0	0	0	0	0	0
Prospect St and Fisher Ave	0.33	1	1	0	1	0	0	1	0	0	0	0	0	0
Prospect St and South Park Ave	0.33	1	0	0	1	0	0	0	1	0	0	0	0	0
Prospect St and Grandview Ave	2.0	6	2	0	6	0	0	0	5	0	0	0	0	0

Source: NYSDOT

Non-Intersection Crashes

As shown in Table 27, the segments of Main Street between Orchard Street and Church Street, had the highest number of crashes (5) over the 3-year time period examined. Fewer crashes (3) occurred along the segments of NYS Route 59 between Middletown and Dykes Park Roads, Main Street between 1st and Prospect Streets, and Prospect Street between Main Street and Grandview Avenue. The most commonly occurring types of crashes along these road segments were rear end collisions. Overtaking/sideswiping, right angle, and right-turn collisions were other types of collisions that occurred along the road segments examined. No High Accident Locations (HALs) were identified among the road segments examined in the Study Area.

No fatalities were reported along any of the road segments studied.

No Build Crash Data

No significant changes in the Study Area crash experience are expected under 2030 No Build Conditions.

Table 27: Study Area Crash Summary – Non-Intersection Locations

Intersection	Number of Crashes		Crash Trend								
	Avg/ Yr	1/1/15 - 12/31/17	Personal Injuries	Fatalities	Reported	Non Reported	Overtaking/ Sideswiping	Rear End	Right Angle	Right Turn (with other car)	Other
NYS Route 59 between Middletown Rd and Dykes Park Rd	1	3	2	0	3	0	0	3	0	0	0
NYS Route 59 between Middletown Rd and College Ave	0.33	1	0	0	1	0	2	0	0	0	0
Main St between 1st St and Prospect St	1	3	1	0	3	0	0	2	0	0	1
Main St between Prospect St and Orchard St	0.67	2	0	0	2	0	0	1	1	0	0
Main St between Orchard St and Church St	1.67	5	1	0	5	0	2	2	1	0	1
Prospect St between Main St and Grandview Ave	1.0	3	0	0	3	0	2	0	1	1	0

Source: **NYSDOT**

2030 Build Conditions

Project Trip Generation

For the purposes of the TIS, the rezoned parcels were grouped into seven zones based on proximity, access and land use type, as shown in Figure 12. The projected number of trips from each zone that would be generated by the Proposed Action was estimated using trip generation rates provided by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. In addition, based on ITE guidance, a transit credit of 15% was applied to account for the proximity of transit to the Project Study Area. Internal trip capture, associated with the mixed-use development of complementary residential and commercial land uses, was also estimated using methods established in the ITE Trip Generation Handbook, 3rd Edition. Table 28 presents the projected trips associated with the Proposed Action by zone. At full build-out, the Proposed Action is estimated to generate approximately 559 trips during the weekday AM peak hour (261 entering, 298 exiting) and 1,350 trips during the weekday PM peak hour (669 entering, 681 exiting).

Project Vehicle Trip Distribution and Assignment

For the purpose of estimating the likely distribution of Project-generated trips, a directional distribution of vehicle trips was created for each zone to five primary points of access/egress from the Study Area (Figure 12) based on a review of traffic patterns on area roadways. These trip distribution patterns are summarized in Table 29 and present the demand approach and departure paths to and from each zone. Figures 13 and 14 show the Project-generated vehicle trips for the weekday AM and PM peak hours, respectively.

Figure 12: Trip Distribution Patterns by Zone

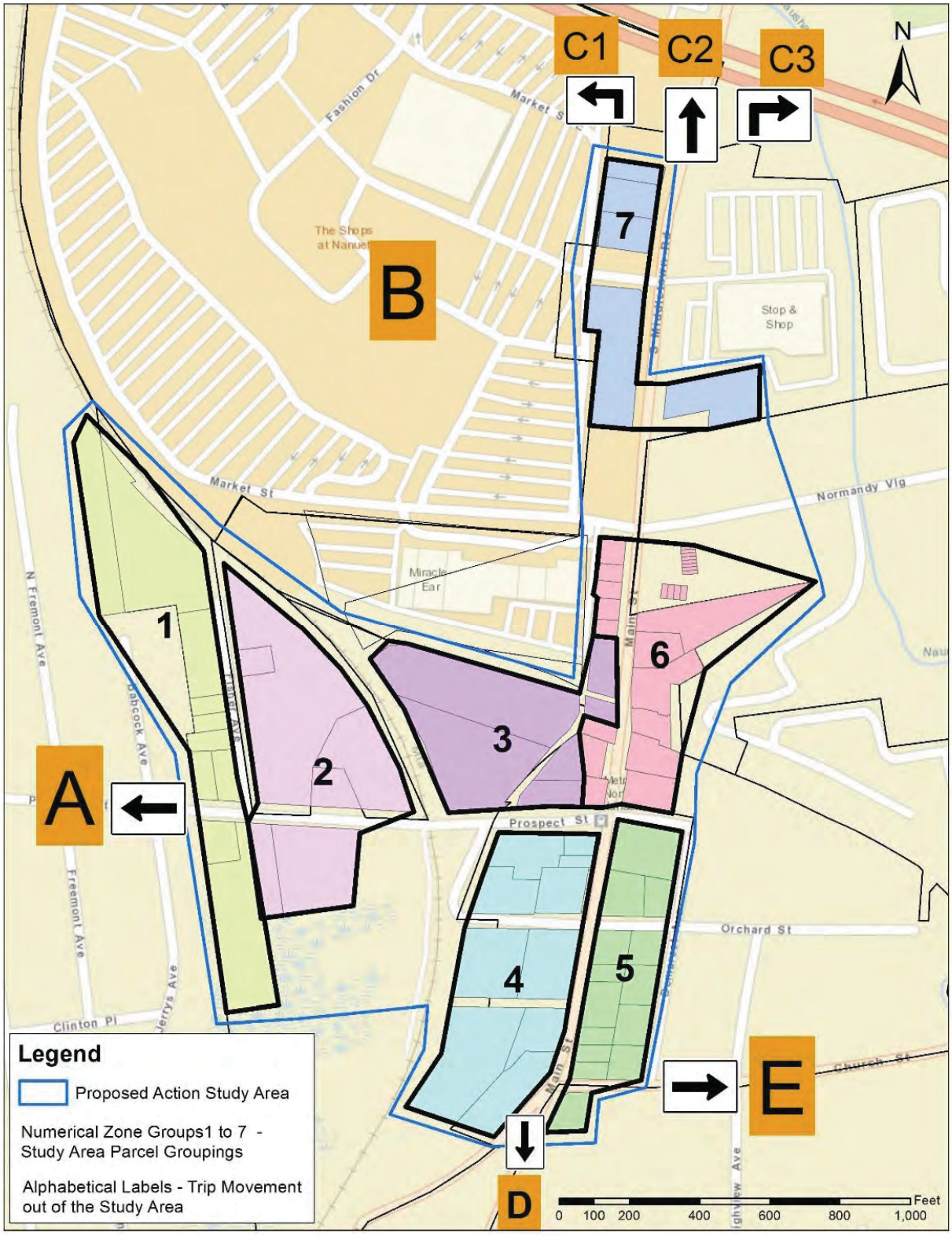


Table 28: Maximum-Build Trip Generation Rates by Internal TOD Zone

Building Component	Development Size[1]		Peak Hour	ITE Data			Trip Generation				Trip Generation with Internalization[5]				
				ITE Land Use #	ITE Land Use Name	Independent Variable	ITE Trip Rate	Transit Credit[4]	Net Trip Rate	Total Trips	% In	% Out	In	Out	Total
Zone 1															
Residential[1]	116	Units	AM	220	Multifamily Housing (Low-Rise)	Dwelling Units	0.46	0.15	0.39	**45**	0.23	0.77	10	34	44
			PM	220	Multifamily Housing (Low-Rise)	Dwelling Units	0.56	0.15	0.48	**56**	0.63	0.37	20	11	31
										Zone 1 AM Vehicle Trips			10	34	44
										Zone 1 PM Vehicle Trips			20	11	31
Zone 2															
Residential[1]	140	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.15	0.31	**43**	0.26	0.74	11	31	42
			PM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.15	0.37	**52**	0.61	0.39	18	12	30
Low Density Commercial[2]	13.6	k SF	AM	N/A	N/A	1,000 SF Gross Floor Area	0.67	0.15	0.57	**8**	0.62	0.38	5	3	8
			PM	N/A	N/A	1,000 SF Gross Floor Area	2.29	0.15	1.95	**26**	0.48	0.52	11	12	23
										Zone 2 AM Vehicle Trips			16	34	50
										Zone 2 PM Vehicle Trips			29	24	53
Zone 3															
Residential[1]	162	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.15	0.31	**50**	0.26	0.74	13	37	50
			PM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.15	0.37	**60**	0.61	0.39	20	13	33
Commercial[3]	149.1	k SF	AM	820	Shopping Center	1,000 SF Gross Floor Area	0.94	0.15	0.80	**119**	0.62	0.38	73	44	117
			PM	820	Shopping Center	1,000 SF Gross Floor Area	3.81	0.15	3.24	**483**	0.48	0.52	209	226	435
										Zone 3 AM Vehicle Trips			86	81	167
										Zone 3 PM Vehicle Trips			229	239	468
Zone 4															
Residential[1]	163	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.15	0.31	**51**	0.26	0.74	13	37	50
			PM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.15	0.37	**60**	0.61	0.39	20	13	33
Commercial[3]	124.6	k SF	AM	820	Shopping Center	1,000 SF Gross Floor Area	0.94	0.15	0.80	**100**	0.62	0.38	61	38	99
			PM	820	Shopping Center	1,000 SF Gross Floor Area	3.81	0.15	3.24	**404**	0.48	0.52	176	190	366
										Zone 4 AM Vehicle Trips			74	75	149
										Zone 4 PM Vehicle Trips			196	203	399
Zone 5															
Residential[1]	53	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.15	0.31	**16**	0.26	0.74	4	12	16
			PM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.15	0.37	**20**	0.61	0.39	7	4	11
Commercial[3]	41.7	k SF	AM	820	Shopping Center	1,000 SF Gross Floor Area	0.94	0.15	0.80	**33**	0.62	0.38	20	13	33
			PM	820	Shopping Center	1,000 SF Gross Floor Area	3.81	0.15	3.24	**135**	0.48	0.52	59	63	122
										Zone 5 AM Vehicle Trips			24	25	49
										Zone 5 PM Vehicle Trips			66	67	133
Zone 6															
Residential[1]	60	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.15	0.31	**19**	0.26	0.74	5	14	19
			PM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.15	0.37	**22**	0.61	0.39	7	5	12
Commercial[3]	48.0	k SF	AM	820	Shopping Center	1,000 SF Gross Floor Area	0.94	0.15	0.80	**38**	0.62	0.38	24	14	38
			PM	820	Shopping Center	1,000 SF Gross Floor Area	3.81	0.15	3.24	**155**	0.48	0.52	67	73	140
										Zone 6 AM Vehicle Trips			29	28	57
										Zone 6 PM Vehicle Trips			74	78	152
Zone 7															
Residential[1]	45	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.15	0.31	**14**	0.26	0.74	4	10	14
			PM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.15	0.37	**17**	0.61	0.39	5	4	9
Commercial[3]	35.9	k SF	AM	820	Shopping Center	1,000 SF Gross Floor Area	0.94	0.15	0.80	**29**	0.62	0.38	18	11	29
			PM	820	Shopping Center	1,000 SF Gross Floor Area	3.81	0.15	3.24	**116**	0.48	0.52	50	55	105
										Zone 7 AM Vehicle Trips			22	21	43
										Zone 7 PM Vehicle Trips			**55**	**59**	**114**
										Total AM Vehicle Trips			**261**	**298**	**559**
										Total PM Vehicle Trips			**669**	**681**	**1,350**

Notes:

1. Rates shown for Residential land uses are the ITE average rates for the Peak Hours of Adjacent Street Traffic.
2. Rates shown for the low density commercial land use are adjusted ITE average rates for land use 820 – Shopping Center for the specific type of retail use.
3. Rates shown for Commercial land use are the ITE averages of rates for land use 820 – Shopping Center for the Peak Hours of Adjacent Street Traffic.
4. A transit credit of 15% was applied to account for the proximity of transit to all land uses (Table B.3 Transportation Impact Factors, ITE Trip Generation Manual, 9th Edition)
5. Internal capture of multi-use development was developed based on the methods in the ITE Trip Generation Handbook. 3rd Edition using Capture Rates from Tables 6.1 and 6.2.

Figure 13: Project-Generated Morning Peak Hour Traffic Conditions

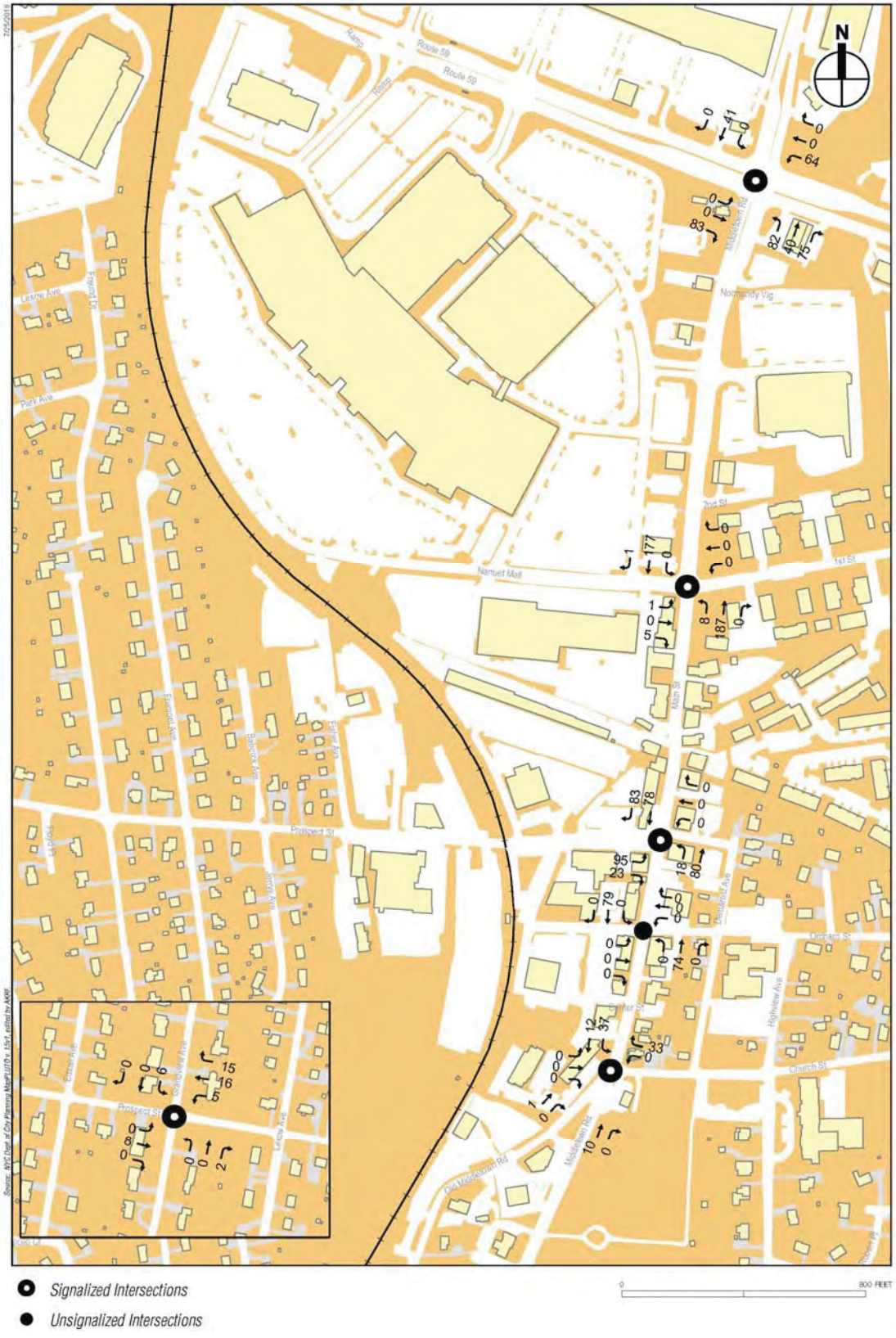


Figure 14: Project-Generated Afternoon Peak Hour Traffic Conditions

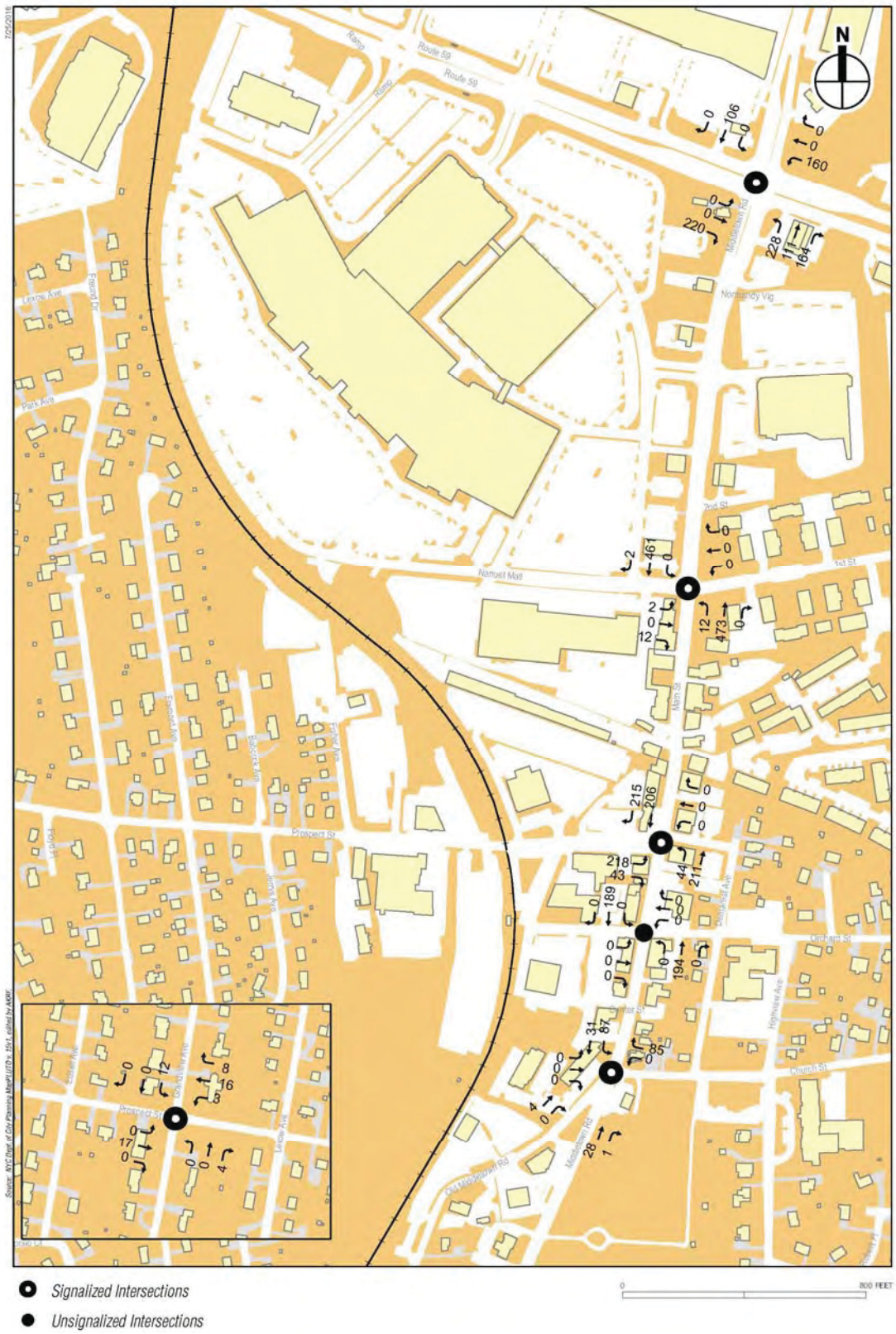


Table 29: Nanuet TOD Trip Distribution Patterns

Origin				Destination							
Zone	**Sub Zones**	**Residential %**	**Commercial %**	**A**	**B**	**C1**	**C2**	**C3**	**D**	**E**	**Total**
1	TOD 1-1, 1-2, 1-3	100%	0%	49%	5%	1%	0%	31%	11%	3%	100%
2	TOD 2-1, 2-2	92%	8%	48%	5%	2%	0%	31%	11%	3%	100%
3	TOD 3-1	38%	62%	1%	5%	31%	25%	24%	11%	3%	100%
4	TOD 3-2, 3-3, 3-4 HC-N 9, 10-1, 10	54%	46%	2%	5%	34%	16%	19%	18%	6%	100%
5	HC-N 7, 8, 11	76%	24%	2%	5%	41%	8%	20%	18%	6%	100%
6	HC-N 4, 5, 6, 6-1	76%	24%	1%	6%	42%	10%	28%	10%	3%	100%
7	HC-N 1, 2, 3	76%	24%	1%	6%	43%	10%	37%	1%	2%	100%

Scenario 1: 2030 Build Traffic Conditions with Existing Roadway Network

The Project-generated vehicle trips described above were added to the No Build traffic volumes to estimate the Build traffic volumes. Figures 15 and 16 show the 2030 Build traffic volumes for the weekday AM and PM peak hours, respectively. All other Study Area intersections not described above would operate under similar operating conditions as without the Proposed Action. Table 30 presents a comparison of the 2030 No Build and 2030 Build Conditions for the Study Area intersections. Synchro 10 outputs for the 2030 Build Condition are provided in Appendix F.

Figure 15: Maximum Buildout Morning Peak Hour Traffic Conditions

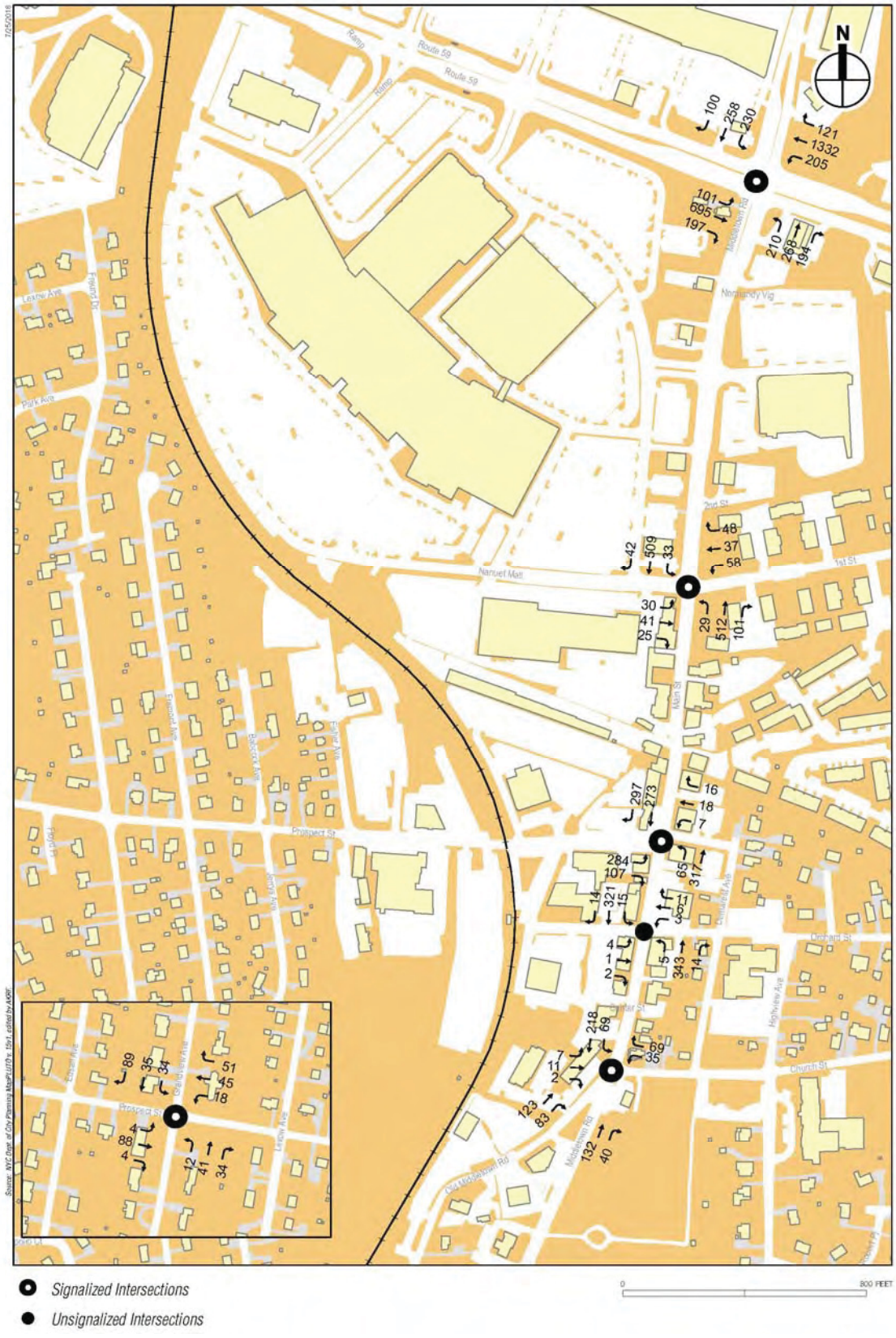
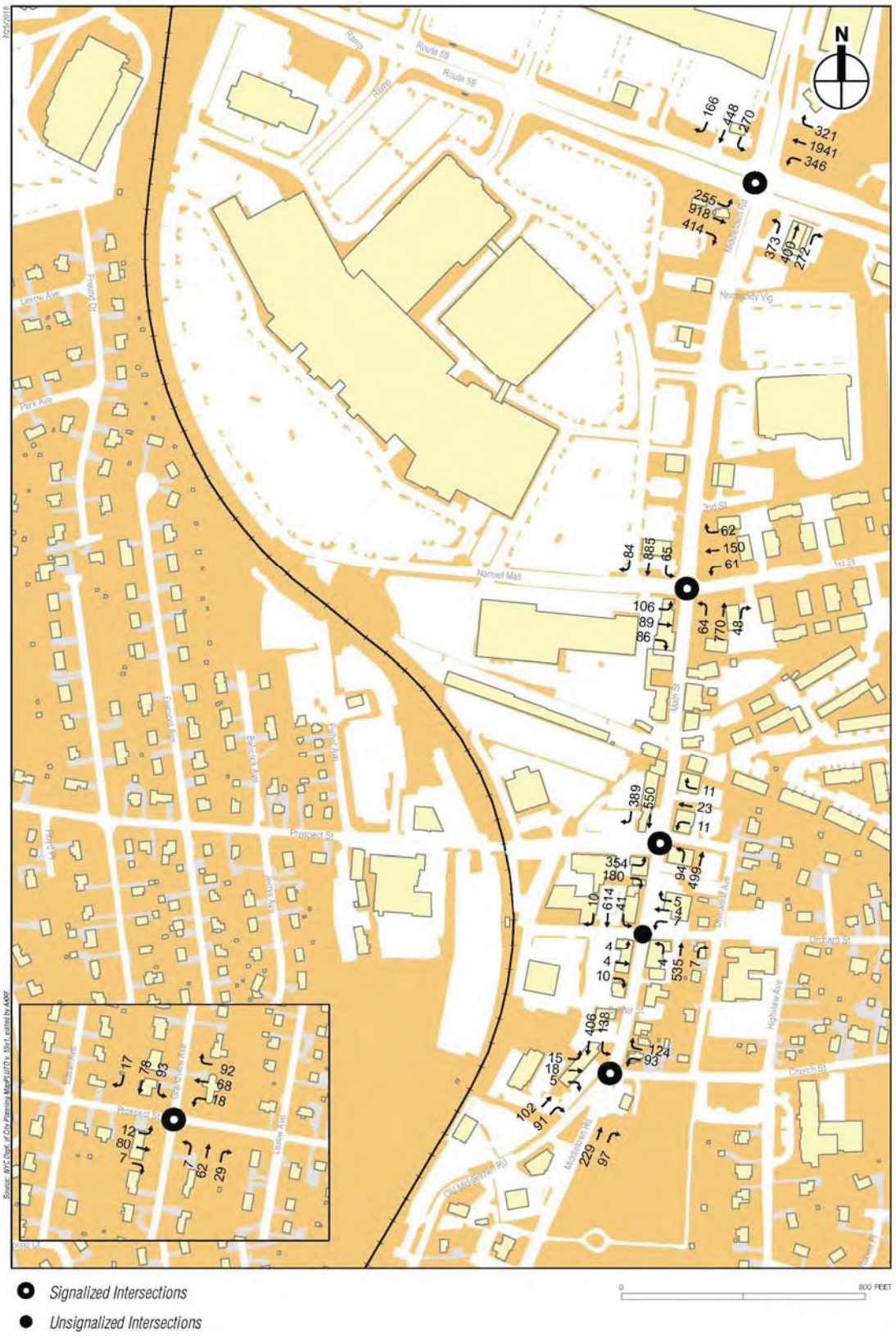


Figure 16: Maximum Buildout Afternoon Peak Hour Traffic Conditions



Under the 2030 Build Conditions the following notable changes would occur for the Study Area intersections:

- NYS Route 59 and N. Middletown/S. Middletown Road—The eastbound shared through/right-turn lane would decrease from LOS D to LOS F during the weekday PM peak hour. The westbound left-turn movement would decrease from LOS D to LOS E during the weekday PM peak hour. The westbound through movement would decrease within LOS F during the weekday PM peak hour. The northbound left-turn movement would decrease from LOS D to LOS E and from LOS D to LOS F during the weekday AM and PM peak hours, respectively. The northbound through movement would decrease within LOS D during the weekday PM peak hour. The southbound shared through/right-turn lane would decrease within LOS D and from LOS D to LOS F during the weekday AM and PM peak hours, respectively.

- Main Street and Market Street/1st Street—The northbound shared through/right-turn lane would decrease from LOS B to LOS E during the weekday PM peak hour. The southbound through movement would decrease from LOS C to LOS F during the weekday PM peak hour.

- Main Street and Prospect Street/William Avenue—The eastbound left-turn movement would decrease within LOS D and from LOS D to LOS E during the weekday AM and PM peak hours, respectively. The northbound approach would decrease from LOS A to LOS F during the weekday PM peak hour. The southbound approach would decrease from LOS A to LOS D during the weekday PM peak hour.

- Main Street/Old Middletown Road and Church Street—The westbound approach would decrease from LOS C to LOS E during the weekday PM peak hour.

All other Study Area intersections not described above would operate under similar operating conditions as without the Proposed Action.

Table 30: 2030 No Build and Build Conditions LOS Analysis

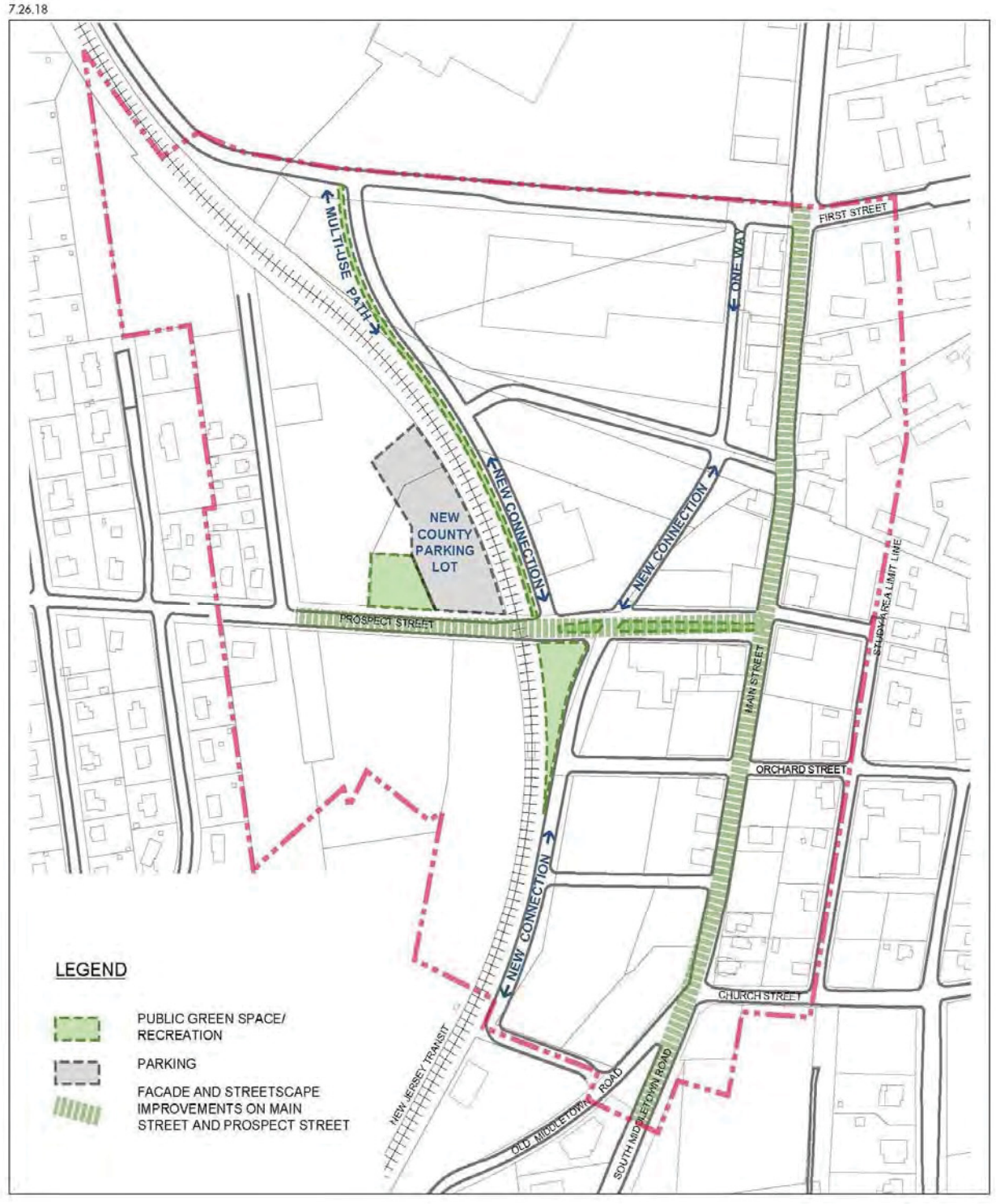
Intersection	Weekday AM								Weekday PM							
	2030 No Action				2030 With Action				2030 No Action				2030 With Action			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Signalized Intersections																
NYS Route 59 & N. Middletown/S. Middletown Road																
Eastbound	L	0.40	47.7	D	L	0.42	51.9	D	L	0.57	48.5	D	L	0.64	52.8	D
	TR	0.57	29.6	C	TR	0.70	36.5	C	TR	0.79	37.9	D	TR	1.08	88.7	F
Westbound	L	0.45	45.4	D	L	0.60	50.7	D	L	0.54	48.5	D	L	0.84	64.4	E
	T	0.82	33.6	C	T	0.85	38.3	D	T	1.34	187.1	F	T	1.39	210.1	F
	R	0.23	25.9	C	R	0.24	28.3	C	R	0.69	41.0	D	R	0.71	44.7	D
Northbound	L	0.65	53.2	D	L	0.84	67.0	E	L	0.68	54.7	D	L	1.40	232.4	F
	T	0.62	46.4	D	T	0.68	50.5	D	T	0.66	47.0	D	T	0.81	54.6	D
	R	0.39	19.3	B	R	0.58	23.4	C	R	0.31	17.1	B	R	0.68	24.8	C
Southbound	L	0.44	36.8	D	L	0.37	36.7	D	L	0.46	39.7	D	L	0.44	41.5	D
	TR	0.63	41.8	D	TR	0.69	46.5	D	TR	0.85	54.0	D	TR	1.06	97.5	F
	Intersection		35.3	D	Intersection		40.9	D	Intersection		97.3	F	Intersection		124.2	F
Main Street & Market Street / 1st Street																
Eastbound	L	0.15	28.4	C	L	0.16	28.6	C	L	0.45	28.4	C	L	0.46	28.6	C
	T	0.27	43.0	D	T	0.27	42.9	D	T	0.27	35.4	D	T	0.27	35.5	D
	R	0.10	29.6	C	R	0.12	29.8	C	R	0.19	25.1	C	R	0.22	25.4	C
Westbound	L	0.24	29.9	C	L	0.24	29.8	C	L	0.20	24.1	C	L	0.20	24.1	C
	TR	0.48	47.8	D	TR	0.48	47.9	D	TR	0.84	64.7	E	TR	0.84	65.2	E
Northbound	L	0.04	4.1	A	L	0.07	4.5	A	L	0.14	8.6	A	L	0.34	11.6	B
	TR	0.44	10.0	B	TR	0.63	13.1	B	TR	0.46	18.4	B	TR	1.07	64.1	E
Southbound	L	0.07	8.0	A	L	0.10	8.3	A	L	0.15	11.5	B	L	0.34	15.6	B
	T	0.32	13.6	B	T	0.52	17.7	B	T	0.53	23.7	C	T	1.17	120.2	F
	R	0.05	7.0	A	R	0.05	7.4	A	R	0.10	8.6	A	R	0.11	8.8	A
	Intersection		16.9	B	Intersection		18.4	B	Intersection		28.4	C	Intersection		73.7	E
Main Street & Prospect Street / William Avenue																
Eastbound	L	0.68	45.3	D	L	0.86	53.7	D	L	0.64	48.2	D	L	0.97	68.4	E
	R	0.26	7.4	A	R	0.26	5.6	A	R	0.45	8.9	A	R	0.37	5.1	A
Westbound	LTR	0.12	29.0	C	LTR	0.09	23.7	C	LTR	0.16	33.1	C	LTR	0.08	22.3	C
Northbound	LT	0.24	10.0	B	LT	0.41	15.2	B	LT	0.29	6.7	A	LT	3.66	1226.9	F
Southbound	TR	0.40	5.4	A	TR	0.61	8.6	A	TR	0.45	4.8	A	TR	1.05	41.9	D
	Intersection		15.8	B	Intersection		20.4	C	Intersection		12.7	B	Intersection		373.4	F
Old Middletown Road/ Main Street & Church Street																
Eastbound	LTR	0.20	46.7	D	LTR	0.24	48.3	D	LTR	0.32	48.7	D	LTR	0.26	45.6	D
Westbound	LTR	0.37	6.7	A	LTR	0.52	15.1	B	LTR	0.65	24.6	C	LTR	0.91	58.8	E
Northbound	T	0.15	13.9	B	T	0.17	14.9	B	T	0.23	16.0	B	T	0.30	18.6	B
	R	0.06	14.2	B	R	0.06	14.7	B	R	0.13	15.5	B	R	0.15	17.0	B
	LR	0.77	56.2	E	LR	0.77	56.5	E	LR	0.78	57.1	E	LR	0.79	57.6	E
Southbound	L	0.05	10.8	B	L	0.12	11.9	B	L	0.10	13.8	B	L	0.30	16.0	B
	T	0.21	10.4	B	T	0.23	11.9	B	T	0.41	15.7	B	T	0.47	18.3	B
	Intersection		25.2	C	Intersection		25.4	C	Intersection		25.8	C	Intersection		31.9	C
Unsignalized Intersections																
Grandview Avenue & Prospect Street																
Eastbound	L	0.14	8.5	A	L	0.16	8.7	A	L	0.14	8.8	A	L	0.18	9.2	A
Westbound	L	0.11	8.1	A	L	0.17	8.5	A	L	0.24	9.0	A	L	0.29	9.6	A
Northbound	L	0.13	8.1	A	L	0.14	8.3	A	L	0.16	8.7	A	L	0.17	9.0	A
Southbound	L	0.22	8.4	A	L	0.24	8.8	A	L	0.28	9.7	A	L	0.32	10.3	B
Main Street & Orchard Street W/ Orchard Street																
Eastbound	L	0.02	13.5	B	L	0.03	15.9	C	L	0.06	15.7	C	L	0.03	15.9	C
Westbound	L	0.05	12.3	B	L	0.06	13.9	B	L	0.07	18.2	C	L	0.06	13.9	B
Northbound	L	0.00	7.8	A	L	0.01	8.1	A	L	0.00	8.3	A	L	0.01	8.1	A
	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A
Southbound	L	0.01	7.9	A	L	0.02	8.1	A	L	0.04	8.2	A	L	0.02	8.1	A
	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	8.1	A

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service
Indicates notable deterioration in operating conditions

Scenario 2: 2030 Build Conditions with New Roadway

Under a secondary 2030 Build Conditions scenario, a new roadway, parallel to a portion of Main Street, would be developed to better distribute Project-generated trips northbound and southbound throughout the Study Area. The new roadway connections would include a north/south roadway between Prospect Street and Market Street adjacent to the railroad tracks, a southbound only roadway from First Street southbound approximately 450 feet and becoming a 2-way northbound southbound roadway to Prospect Street, and an east/west connector roadway from the new roadway adjacent to the railroad tracks to Main Street, intersecting with Main Street at approximately the Normandy Village driveway. In addition, Orchard Street West would be continued southbound adjacent to the railroad tracks to connect with Old Middletown Road with several intermediate east/west connectors to Main Street. The proposed roadway configuration is presented in Figure 17.

Figure 17: Proposed New Roadway Connections



Project-generated trips described above were modified to account for the new roadway infrastructure shown in Figure 17 and were added to the No Build traffic volumes to estimate the Build traffic volumes with the new roadway infrastructure. Table 31 presents a comparison of the 2030 No Build and 2030 Build Conditions for the Study Area intersections under Scenario 2. Project-generated trips for the weekday AM and PM peak hours as well as Synchro 10 outputs for the 2030 Build Scenario 2 Condition are provided in Appendix F.

Under the 2030 Build Scenario 2 Conditions the following notable changes would occur for the Study Area intersections:

- NYS Route 59 and N. Middletown/S. Middletown Road—The eastbound left-turn movement would decrease from LOS D to LOS E during the weekday PM peak hour. The eastbound shared through/right-turn lane would decrease from LOS D to LOS E during the weekday PM peak hour. The westbound left-turn movement would decrease from LOS D to LOS E during the weekday PM peak hour. The northbound left-turn movement would decrease from LOS D to LOS E and from LOS D to LOS F during the weekday AM and PM peak hours, respectively. The northbound through movement would decrease from LOS D to LOS E during the weekday PM peak hour. The southbound shared through/right-turn lane would decrease from LOS D to LOS E during the weekday PM peak hour.

- Main Street and Market Street/1st Street—The northbound shared through/right-turn lane would decrease from LOS B to LOS D during the weekday PM peak hour.

- Main Street and Prospect Street/William Avenue—The eastbound left-turn movement would decrease within LOS D during the weekday AM peak hour.

- Main Street/Old Middletown Road and Church Street—The westbound approach would decrease from LOS C to LOS E during the weekday PM peak hour.

All other Study Area intersections not described above would operate under similar operating conditions as without the Proposed Action.

Table 31: 2030 No Build and Build Scenario 2 Conditions LOS

	Weekday AM								Weekday PM							
	2030 No Action				2030 With Action				2030 No Action				2030 With Action			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Signalized Intersections																
NYS Route 59 & N. Middletown/S. Middletown Road																
Eastbound	L	0.40	47.7	D	L	0.42	50.9	D	L	0.57	48.5	D	L	0.69	57.1	E
	TR	0.57	29.6	C	TR	0.65	34.2	C	TR	0.79	37.9	D	TR	1.00	65.1	E
Westbound	L	0.45	45.4	D	L	0.59	49.6	D	L	0.54	48.5	D	L	0.84	65.4	E
	T	0.82	33.6	C	T	0.83	36.3	D	T	1.34	187.1	F	T	1.38	206.3	F
	R	0.23	25.9	C	R	0.23	27.5	C	R	0.69	41.0	D	R	0.71	45.3	D
Northbound	L	0.65	53.2	D	L	0.77	61.6	E	L	0.68	54.7	D	L	1.04	105.9	F
	T	0.62	46.4	D	T	0.67	49.3	D	T	0.66	47.0	D	T	0.84	59.4	E
	R	0.39	19.3	B	R	0.58	22.9	C	R	0.31	17.1	B	R	0.70	27.2	C
Southbound	L	0.44	36.8	D	L	0.40	37.5	D	L	0.46	39.7	D	L	0.41	39.7	D
	TR	0.63	41.8	D	TR	0.68	45.3	D	TR	0.85	54.0	D	TR	0.99	77.6	E
	Intersection		35.3	D	Intersection		39.0	D	Intersection		97.3	F	Intersection		109.2	F
Main Street & Market Street / 1st Street																
Eastbound	L	0.15	28.4	C	L	0.16	28.6	C	L	0.45	28.4	C	L	0.46	28.6	C
	T	0.27	43.0	D	T	0.27	42.9	D	T	0.27	35.4	D	T	0.27	35.5	D
	R	0.10	29.6	C	R	0.10	29.6	C	R	0.19	25.1	C	R	0.20	25.1	C
Westbound	L	0.24	29.9	C	L	0.24	29.8	C	L	0.20	24.1	C	L	0.20	24.1	C
	TR	0.48	47.8	D	TR	0.48	47.9	D	TR	0.84	64.7	E	TR	0.84	65.2	E
Northbound	L	0.04	4.1	A	L	0.06	8.1	A	L	0.14	8.6	A	L	0.33	15.6	B
	TR	0.44	10.0	B	TR	0.59	18.8	B	TR	0.46	18.4	B	TR	0.93	46.2	D
Southbound	L	0.07	8.0	A	L	0.09	8.2	A	L	0.15	11.5	B	L	0.34	15.6	B
	T	0.32	13.6	B	T	0.43	15.3	B	T	0.53	23.7	C	T	0.86	38.5	D
	R	0.05	7.0	A	R	0.08	6.9	A	R	0.10	8.6	A	R	0.19	9.3	A
	Intersection		16.9	B	Intersection		19.9	B	Intersection		28.4	C	Intersection		38.9	D
Main Street & Prospect Street / William Avenue																
Eastbound	L	0.68	45.3	D	L	0.80	50.8	D	L	0.64	48.2	D	L	0.73	44.5	D
	R	0.26	7.4	A	R	0.29	6.1	A	R	0.45	8.9	A	R	0.45	6.3	A
Westbound	LTR	0.12	29.0	C	LTR	0.10	25.9	C	LTR	0.16	33.1	C	LTR	0.11	26.0	C
Northbound	LT	0.24	10.0	B	LT	0.34	12.6	B	LT	0.29	6.7	A	LT	0.80	24.8	C
Southbound	TR	0.40	5.4	A	TR	0.51	11.2	B	TR	0.45	4.8	A	TR	0.70	17.0	B
	Intersection		15.8	B	Intersection		19.5	B	Intersection		12.7	B	Intersection		22.3	C
Old Middletown Road/ Main Street & Church Street																
Eastbound	LTR	0.20	46.7	D	LTR	0.24	48.5	D	LTR	0.32	48.7	D	LTR	0.27	45.8	D
Westbound	LTR	0.37	6.7	A	LTR	0.53	15.6	B	LTR	0.65	24.6	C	LTR	0.90	56.6	E
Northbound	T	0.15	13.9	B	T	0.17	14.9	B	T	0.23	16.0	B	T	0.29	18.3	B
	R	0.06	14.2	B	R	0.06	14.7	B	R	0.13	15.5	B	R	0.15	16.9	B
	LR	0.77	56.2	E	LR	0.77	56.2	E	LR	0.78	57.1	E	LR	0.78	57.1	E
Southbound	L	0.05	10.8	B	L	0.12	9.4	A	L	0.10	13.8	B	L	0.30	13.1	B
	T	0.21	10.4	B	T	0.22	9.7	A	T	0.41	15.7	B	T	0.46	14.3	B
	Intersection		25.2	C	Intersection		24.6	C	Intersection		25.8	C	Intersection		29.8	C
Unsignalized Intersections																
Grandview Avenue & Prospect Street																
Eastbound	L	0.14	8.5	A	L	0.16	8.7	A	L	0.14	8.8	A	L	0.17	9.2	A
Westbound	L	0.11	8.1	A	L	0.17	8.5	A	L	0.24	9.0	A	L	0.27	9.5	A
Northbound	L	0.13	8.1	A	L	0.14	8.3	A	L	0.16	8.7	A	L	0.17	8.9	A
Southbound	L	0.22	8.4	A	L	0.24	8.8	A	L	0.28	9.7	A	L	0.32	10.3	B
Main Street & Orchard Street W/ Orchard Street																
Eastbound	L	0.02	13.5	B	L	0.03	14.4	B	L	0.06	15.7	C	L	0.10	21.4	C
Westbound	L	0.05	12.3	B	L	0.06	13.7	B	L	0.07	18.2	C	L	0.11	28.2	D
Northbound	L	0.00	7.8	A	L	0.01	8.0	A	L	0.00	8.3	A	L	0.01	8.8	A
	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A
Southbound	L	0.01	7.9	A	L	0.01	8.1	A	L	0.04	8.2	A	L	0.04	8.7	A
	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A
Railway Road & Mall Drive / Market Street																
Westbound					L	0.00	0.0	A					L	0.00	0.0	A
Northbound					L	0.05	8.8	A					L	0.13	9.4	A
Orchard Street Ext & Market Street[1]																
Westbound					L	0.02	7.3	A					L	0.05	7.3	A
Orchard Street Ext & New Roadway																
Eastbound					L	0.00	0.0	A					L	0.00	0.0	A
Westbound					L	0.00	0.0	A					L	0.00	0.0	A
Northbound					L	0.03	8.4	A					L	0.08	8.6	A
Southbound					L	0.03	9.2	A					L	0.09	9.4	A
Main Street & New Roadway																
Eastbound					L	0.03	8.6	A					L	0.09	8.9	A
Northbound					L	0.00	0.0	A					L	0.00	0.0	A
Prospect Street & Railway Road																
Eastbound					L	0.00	7.3	A					L	0.00	7.4	A
					T	0.00	0.0	A					T	0.00	0.0	A
Southbound					L	0.02	8.9	A					L	0.05	9.1	A
Orchard Street Ext & Prospect Street																
Eastbound					L	0.00	7.3	A					L	0.00	7.5	A
					T	0.00	0.0	A					T	0.00	0.0	A
Westbound					L	0.00	0.0	A					L	0.00	0.0	A
Northbound					L	0.02	9.2	A					L	0.06	9.9	A
Southbound					L	0.05	9.3	A					L	0.15	10.2	B
Old Middletown Road & Orchard Street Ext																
Eastbound					L	0.00	8.3	A					L	0.00	8.3	A
Northbound					L	0.00	7.2	A					L	0.00	7.2	A

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service
[1] HCM 2000 used to generate results
Indicates notable deterioration in operating conditions

Proposed Mitigation

Scenario 1: 2030 Build Traffic Conditions with Existing Roadway Network

For the impacted locations described in Tables 30 and 31, mitigation measures, such as signal retiming and roadway restriping, were examined as measures to improve traffic operating conditions. As the Proposed Action rezones a large area surrounding the Nanuet Train Station and allows for a variety of commercial uses and access/egress configurations, this traffic analysis should be considered generic and reflects the level of traffic that could be anticipated with such a rezoning in place. For these reasons, proposed traffic mitigation is meant to outline the types of measures, which may be needed in the Study Area. Further detailed analysis to identify specific mitigation measures should be undertaken with detailed development plans for the rezoned parcels. The State Environmental Quality Review (SEQR) Manual recommends a quantitative TIS for projects that generate 100 peak hour trips or more. Furthermore, a TIS may also need to be performed for projects located in a sensitive area of the network where less than 100 peak hour trips could potentially trigger the need for improvements.

For the impacted locations along Main Street without the proposed new roadway infrastructure, mitigation measures may be needed as follows:

- Main Street and Market Street/ 1st Street —Retiming the traffic signal and lane restriping.
- Main Street and Prospect Street/William Avenue—Retiming the traffic signal and restriping the northbound approach to include one left-turn lane and one through lane.
- Old Middletown Road/Main Street and Church Avenue—Retiming the traffic signal.

For the intersection of NYS Route 59 and N. Middletown/S. Middletown Road restriping of the eastbound shared through/right-turn lane to a dedicated right-turn lane (allowing for a right-turn overlap) and restriping the northbound approach from one left-turn lane, 2 through lanes and one right-turn lane, to 2 left-turn lanes, one through lane, and a shared through/right-turn lane, with adjustments to signal timing would improve delays at the intersection but would not fully return operating conditions for some of the impacted movements to No Build Conditions. However, for the traffic volumes processed at this intersection of two major roadways, the increases in delay at this intersection are not considered substantial to where drivers would experience a noticeable increase in delay.

In addition and as discussed above, improvement measures are planned for this intersection including Intelligent Transportation System (ITS) infrastructure (such as Transit Signal Priority (TSP) with queue jumping, upgraded controller technology and vehicle detection, and the possibility for an Adaptive Traffic Control System), which may further improve operating conditions. Generally, Adaptive Traffic Control Systems for congested arterials have the potential to improve vehicle delay and the number of stops along an adaptive route by approximately 10% when implemented correctly. This 10% improvement would further

improve intersection operations and better adapt to the variations in traffic volumes throughout the day, leading to a better driver experience through the corridor.

The following additional mitigation measures may be needed and should be evaluated with a future traffic study to determine need:

- Potential for traffic signal coordination along the NYS Route 59 corridor.
- Widening the northbound and southbound approaches to include two left-turn lanes, two through lanes, and one dedicated right-turn lane.
- Widening the eastbound approach to include two left-turn lanes, three through lanes, and one dedicated right-turn lane.

Table 32 presents a comparison of the 2030 No Build, Build and Mitigation Conditions for the Study Area intersections without the new roadway infrastructure. For the Synchro 10 outputs associated with the 2030 Mitigation Conditions see Appendix F.

Table 32: 2030 No Build, Build, and Mitigated Conditions LOS Analysis

	Weekday AM												Weekday PM											
	2030 No Action				2030 With Action				2030 Mitigated				2030 No Action				2030 With Action				2030 Mitigated			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Signalized Intersections																								
NYS Route 59 & N. Middletown/S. Middletown Road																								
Eastbound	L	0.40	47.7	D	L	0.42	51.9	D	L	0.42	49.9	D	L	0.57	48.5	D	L	0.64	52.8	D	L	0.64	52.6	D
	TR	0.57	29.6	C	TR	0.70	36.5	C	T	0.74	37.3	D	TR	0.79	37.9	D	TR	1.08	88.7	F	T	1.01	70.8	E
									R	0.33	18.1	B									R	0.67	27.7	C
Westbound	L	0.45	45.4	D	L	0.60	50.7	D	L	0.59	48.8	D	L	0.54	48.5	D	L	0.84	64.4	E	L	0.84	64.1	E
	T	0.82	33.6	C	T	0.85	38.3	D	T	0.84	35.8	D	T	1.34	187.1	F	T	1.39	210.1	F	T	1.38	207.3	F
	R	0.23	25.9	C	R	0.24	28.3	C	R	0.23	26.3	C	R	0.69	41.0	D	R	0.71	44.7	D	R	0.71	44.3	D
Northbound	L	0.65	53.2	D	L	0.84	67.0	E	L	0.63	49.8	D	L	0.68	54.7	D	L	1.40	232.4	F	L	0.95	79.2	E
	T	0.62	46.4	D	T	0.68	50.5	D	TR	0.88	57.3	E	T	0.66	47.0	D	T	0.81	54.6	D	TR	0.99	70.0	E
	R	0.39	19.3	B	R	0.58	23.4	C					R	0.31	17.1	B	R	0.68	24.8	C				
Southbound	L	0.44	36.8	D	L	0.37	36.7	D	L	0.55	44.4	D	L	0.46	39.7	D	L	0.44	41.5	D	L	0.76	59.8	E
	TR	0.63	41.8	D	TR	0.69	46.5	D	TR	0.55	38.7	D	TR	0.85	54.0	D	TR	1.06	97.5	F	TR	0.86	53.1	D
	Intersection		35.3	D	Intersection		40.9	D	Intersection		40.1	D	Intersection		97.3	F	Intersection		124.2	F	Intersection		106.1	F
Main Street & Market Street / 1st Street																								
Eastbound	L	0.15	28.4	C	L	0.16	28.6	C	L	0.16	28.6	C	L	0.45	28.4	C	L	0.46	28.6	C	L	0.60	38.2	D
	T	0.27	43.0	D	T	0.27	42.9	D	T	0.27	42.9	D	T	0.27	35.4	D	T	0.27	35.5	D	T	0.31	37.6	D
	R	0.10	29.6	C	R	0.12	29.8	C	R	0.12	29.8	C	R	0.19	25.1	C	R	0.22	25.4	C	R	0.27	29.1	C
Westbound	L	0.24	29.9	C	L	0.24	29.8	C	L	0.24	29.8	C	L	0.20	24.1	C	L	0.20	24.1	C	L	0.21	26.2	C
	TR	0.48	47.8	D	TR	0.48	47.9	D	TR	0.48	47.9	D	TR	0.84	64.7	E	TR	0.84	65.2	E	TR	0.85	64.7	E
Northbound	L	0.04	4.1	A	L	0.07	4.5	A	L	0.07	3.6	A	L	0.14	8.6	A	L	0.34	11.6	B	L	0.42	15.4	B
	TR	0.44	10.0	B	TR	0.63	13.1	B	TR	0.63	10.4	B	TR	0.46	18.4	B	TR	1.07	64.1	E	TR	0.97	45.5	D
Southbound	L	0.07	8.0	A	L	0.10	8.3	A	L	0.10	8.4	A	L	0.15	11.5	B	L	0.34	15.6	B	L	0.38	15.7	B
	T	0.32	13.6	B	T	0.52	17.7	B	T	0.47	16.4	B	T	0.53	23.7	C	T	1.17	120.2	F	T	0.94	42.1	D
	R	0.05	7.0	A	R	0.05	7.4	A	R	0.05	7.4	A	R	0.10	8.6	A	R	0.11	8.8	A	R	0.11	8.6	A
	Intersection		16.9	B	Intersection		18.4	B	Intersection		16.8	B	Intersection		28.4	C	Intersection		73.7	E	Intersection		41.6	D
Main Street & Prospect Street / William Avenue																								
Eastbound	L	0.68	45.3	D	L	0.86	53.7	D	L	0.70	44.1	D	L	0.64	48.2	D	L	0.97	68.4	E	L	0.83	44.9	D
	R	0.26	7.4	A	R	0.26	5.6	A	R	0.20	4.2	A	R	0.45	8.9	A	R	0.37	5.1	A	R	0.39	4.7	A
Westbound	LTR	0.12	29.0	C	LTR	0.09	23.7	C	LTR	0.27	42.7	D	LTR	0.16	33.1	C	LTR	0.08	22.3	C	LTR	0.30	44.6	D
Northbound	LT	0.24	10.0	B	LT	0.41	15.2	B	L	0.16	16.2	B	LT	0.29	6.7	A	LT	3.66	1226.9	F	L	0.43	18.2	B
									T	0.38	18.8	B									T	0.56	14.3	B
Southbound	TR	0.40	5.4	A	TR	0.61	8.6	A	T	0.42	15.6	B	TR	0.45	4.8	A	TR	1.05	41.9	D	T	0.86	27.1	C
									R	0.42	2.7	A									R	0.50	4.4	A
	Intersection		15.8	B	Intersection		20.4	C	Intersection		19.7	B	Intersection		12.7	B	Intersection		373.4	F	Intersection		21.8	C
Old Middletown Road/ Main Street & Church Street																								
Eastbound	LTR	0.20	46.7	D	LTR	0.24	48.3	D	LTR	0.24	48.3	D	LTR	0.32	48.7	D	LTR	0.26	45.6	D	LTR	0.22	39.3	D
Westbound	LTR	0.37	6.7	A	LTR	0.52	15.1	B	LTR	0.52	15.1	B	LTR	0.65	24.6	C	LTR	0.91	58.8	E	LTR	0.84	44.0	D
Northbound	T	0.15	13.9	B	T	0.17	14.9	B	T	0.17	14.9	B	T	0.23	16.0	B	T	0.30	18.6	B	T	0.31	21.4	C
	R	0.06	14.2	B	R	0.06	14.7	B	R	0.06	14.7	B	R	0.13	15.5	B	R	0.15	17.0	B	R	0.16	20.1	C
	LR	0.77	56.2	E	LR	0.77	56.5	E	LR	0.77	56.5	E	LR	0.78	57.1	E	LR	0.79	57.6	E	LR	0.79	57.6	E
Southbound	L	0.05	10.8	B	L	0.12	11.9	B	L	0.12	15.7	B	L	0.10	13.8	B	L	0.30	16.0	B	L	0.32	13.7	B
	T	0.21	10.4	B	T	0.23	11.9	B	T	0.23	16.1	B	T	0.41	15.7	B	T	0.47	18.3	B	T	0.49	14.0	B
	Intersection		25.2	C	Intersection		25.4	C	Intersection		26.9	C	Intersection		25.8	C	Intersection		31.9	C	Intersection		28.3	C
Unsignalized Intersections																								
Grandview Avenue & Prospect Street																								
Eastbound	L	0.14	8.5	A	L	0.16	8.7	A	L	0.16	8.7	A	L	0.14	8.8	A	L	0.18	9.2	A	L	0.18	9.2	A
Westbound	L	0.11	8.1	A	L	0.17	8.5	A	L	0.17	8.5	A	L	0.24	9.0	A	L	0.29	9.6	A	L	0.29	9.6	A
Northbound	L	0.13	8.1	A	L	0.14	8.3	A	L	0.14	8.3	A	L	0.16	8.7	A	L	0.17	9.0	A	L	0.17	9.0	A
Southbound	L	0.22	8.4	A	L	0.24	8.8	A	L	0.24	8.8	A	L	0.28	9.7	A	L	0.32	10.3	B	L	0.32	10.3	B

Main Street & Orchard Street W/ Orchard Street																								
Eastbound	L	0.02	13.5	B	L	0.03	15.9	C	L	0.03	15.9	C	L	0.06	15.7	C	L	0.03	15.9	C	L	0.11	24.1	C
Westbound	L	0.05	12.3	B	L	0.06	13.9	B	L	0.06	13.9	B	L	0.07	18.2	C	L	0.06	13.9	B	L	0.13	31.1	D
Northbound	L	0.00	7.8	A	L	0.01	8.1	A	L	0.01	8.1	A	L	0.00	8.3	A	L	0.01	8.1	A	L	0.01	8.9	A
	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A
Southbound	L	0.01	7.9	A	L	0.02	8.1	A	L	0.02	8.1	A	L	0.04	8.2	A	L	0.02	8.1	A	L	0.05	8.8	A
	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	8.1	A	T	0.00	0.0	A

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service

Indicates notable deterioration in operating conditions

Scenario 2: 2030 Build Conditions with New Roadway

With the new roadway infrastructure, there exist similar impacts to the Proposed Action without the additional roadway infrastructure. The new connections mainly provide additional access for development in Zones 1, 2 and 3 which could use the new connections to bypass Main Street to reach the Mall or NYS Route 59. However, Zones 1, 2 and 3 are anticipated to generate less traffic than the zones located on Main Street which have more commercial uses and would mostly continue to use Main Street and the NYS Route 59 intersection unless driveway access discouraged the use of Main Street. For these reasons the additional roadway infrastructure does not show sizable improvements in terms of traffic operating conditions as compared to operations with the existing roadway infrastructure.

However, it should be noted that as Zones 1, 2 and 3 contain a majority of the proposed residential uses, the additional roadway infrastructure does provide better access, route alternatives, and overall better traffic flow for residents in the area than without the additional roadway infrastructure. Furthermore, the additional roadway infrastructure provides separation from a major retail corridor, where frequent delay would be anticipated, and local residents and the community needing a route to pass through the area.

For the impacted locations along Main Street with the proposed new roadway infrastructure, the same mitigation measures identified for the existing roadway infrastructure could be used to improve operating conditions with the exception of the intersection of NYS Route 59 and N. Middletown/S. Middletown Road. As the new roadway connections would better distribute vehicles away from this intersection an additional northbound left-turn lane would not be necessary to process the proposed traffic volumes and restriping and retiming would not be recommended for this intersection. As discussed above, improvement measures planned for this intersection may further improve operating conditions in the future.

As such, the new roadways proposed within Scenario 2 (Figure 17) should be added to the Town's Official Map as a mitigation measure for the Proposed Action.

Table 33 presents a comparison of the 2030 No Build, Build and Mitigation Conditions for the Study Area intersections with the new roadway infrastructure. For the Synchro 10 outputs associated with the 2030 Mitigation Conditions (see Appendix F).

Table 33: 2030 No Build, Build, and Mitigated Scenario 2 Conditions LOS Analysis

Intersection	Weekday AM												Weekday PM											
	2030 No Action				2030 With Action				2030 Mitigated				2030 No Action				2030 With Action				2030 Mitigated			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Signalized Intersections																								
NYS Route 59 & N. Middletown/S. Middletown Road																								
Eastbound	L	0.40	47.7	D	L	0.42	50.9	D	L	0.42	51.3	D	L	0.57	48.5	D	L	0.69	57.1	E	L	0.69	57.1	E
	TR	0.57	29.6	C	TR	0.65	34.2	C	TR	0.67	35.4	D	TR	0.79	37.9	D	TR	1.00	65.1	E	TR	1.00	65.1	E
Westbound	L	0.45	45.4	D	L	0.59	49.6	D	L	0.59	49.9	D	L	0.54	48.5	D	L	0.84	65.4	E	L	0.84	65.4	E
	T	0.82	33.6	C	T	0.83	36.3	D	T	0.85	37.9	D	T	1.34	187.1	F	T	1.38	206.3	F	T	1.38	206.3	F
	R	0.23	25.9	C	R	0.23	27.5	C	R	0.24	28.7	C	R	0.69	41.0	D	R	0.71	45.3	D	R	0.71	45.3	D
Northbound	L	0.65	53.2	D	L	0.77	61.6	E	L	0.73	56.1	E	L	0.68	54.7	D	L	1.04	105.9	F	L	1.04	105.9	F
	T	0.62	46.4	D	T	0.67	49.3	D	T	0.67	49.4	D	T	0.66	47.0	D	T	0.84	59.4	E	T	0.84	59.4	E
	R	0.39	19.3	B	R	0.58	22.9	C	R	0.58	23.1	C	R	0.31	17.1	B	R	0.70	27.2	C	R	0.70	27.2	C
Southbound	L	0.44	36.8	D	L	0.40	37.5	D	L	0.39	36.4	D	L	0.46	39.7	D	L	0.41	39.7	D	L	0.41	39.7	D
	TR	0.63	41.8	D	TR	0.68	45.3	D	TR	0.69	46.0	D	TR	0.85	54.0	D	TR	0.99	77.6	E	TR	0.99	77.6	E
	Intersection		35.3	D	Intersection		39.0	D	Intersection		39.6	D	Intersection		97.3	F	Intersection		109.2	F	Intersection		109.2	F
Main Street & Market Street / 1st Street																								
Eastbound	L	0.15	28.4	C	L	0.16	28.6	C	L	0.16	28.6	C	L	0.45	28.4	C	L	0.46	28.6	C	L	0.46	28.6	C
	T	0.27	43.0	D	T	0.27	42.9	D	T	0.27	42.9	D	T	0.27	35.4	D	T	0.27	35.5	D	T	0.27	35.5	D
	R	0.10	29.6	C	R	0.10	29.6	C	R	0.10	29.6	C	R	0.19	25.1	C	R	0.20	25.1	C	R	0.20	25.6	C
Westbound	L	0.24	29.9	C	L	0.24	29.8	C	L	0.24	29.8	C	L	0.20	24.1	C	L	0.20	24.1	C	L	0.20	24.1	C
	TR	0.48	47.8	D	TR	0.48	47.9	D	TR	0.48	47.9	D	TR	0.84	64.7	E	TR	0.84	65.2	E	TR	0.84	65.2	E
Northbound	L	0.04	4.1	A	L	0.06	8.1	A	L	0.06	8.1	A	L	0.14	8.6	A	L	0.33	15.6	B	L	0.34	16.0	B
	TR	0.44	10.0	B	TR	0.59	18.8	B	TR	0.59	18.8	B	TR	0.46	18.4	B	TR	0.93	46.2	D	TR	0.92	44.4	D
Southbound	L	0.07	8.0	A	L	0.09	8.2	A	L	0.09	8.2	A	L	0.15	11.5	B	L	0.34	15.6	B	L	0.36	16.1	B
	T	0.32	13.6	B	T	0.43	15.3	B	T	0.43	15.3	B	T	0.53	23.7	C	T	0.86	38.5	D	T	0.86	37.3	D
	R	0.05	7.0	A	R	0.08	6.9	A	R	0.08	6.9	A	R	0.10	8.6	A	R	0.19	9.3	A	R	0.19	9.0	A
	Intersection		16.9	B	Intersection		19.9	B	Intersection		19.9	B	Intersection		28.4	C	Intersection		38.9	D	Intersection		38.0	D
Main Street & Prospect Street / William Avenue																								
Eastbound	L	0.68	45.3	D	L	0.80	50.8	D	L	0.75	45.1	D	L	0.64	48.2	D	L	0.73	44.5	D	L	0.73	44.5	D
	R	0.26	7.4	A	R	0.29	6.1	A	R	0.28	5.6	A	R	0.45	8.9	A	R	0.45	6.3	A	R	0.45	6.3	A
Westbound	LTR	0.12	29.0	C	LTR	0.10	25.9	C	LTR	0.10	24.2	C	LTR	0.16	33.1	C	LTR	0.11	26.0	C	LTR	0.11	26.0	C
Northbound	LT	0.24	10.0	B	LT	0.34	12.6	B	LT	0.35	7.6	A	LT	0.29	6.7	A	LT	0.80	24.8	C	LT	0.80	25.4	C
Southbound	TR	0.40	5.4	A	TR	0.51	11.2	B	TR	0.53	13.1	B	TR	0.45	4.8	A	TR	0.70	17.0	B	TR	0.70	17.0	B
	Intersection		15.8	B	Intersection		19.5	B	Intersection		17.6	B	Intersection		12.7	B	Intersection		22.3	C	Intersection		22.5	C
Old Middletown Road/ Main Street & Church Street																								
Eastbound	LTR	0.20	46.7	D	LTR	0.24	48.5	D	LTR	0.24	48.5	D	LTR	0.32	48.7	D	LTR	0.27	45.8	D	LTR	0.23	40.2	D
Westbound	LTR	0.37	6.7	A	LTR	0.53	15.6	B	LTR	0.53	15.6	B	LTR	0.65	24.6	C	LTR	0.90	56.6	E	LTR	0.84	43.7	D
Northbound	T	0.15	13.9	B	T	0.17	14.9	B	T	0.17	14.9	B	T	0.23	16.0	B	T	0.29	18.3	B	T	0.30	20.7	C
	R	0.06	14.2	B	R	0.06	14.7	B	R	0.06	14.7	B	R	0.13	15.5	B	R	0.15	16.9	B	R	0.16	19.5	B
	LR	0.77	56.2	E	LR	0.77	56.2	E	LR	0.77	56.2	E	LR	0.78	57.1	E	LR	0.78	57.1	E	LR	0.78	57.1	E
Southbound	L	0.05	10.8	B	L	0.12	9.4	A	L	0.12	6.2	A	L	0.10	13.8	B	L	0.30	13.1	B	L	0.31	16.4	B
	T	0.21	10.4	B	T	0.22	9.7	A	T	0.22	6.3	A	T	0.41	15.7	B	T	0.46	14.3	B	T	0.47	17.6	B
	Intersection		25.2	C	Intersection		24.6	C	Intersection		23.4	C	Intersection		25.8	C	Intersection		29.8	C	Intersection		29.4	C
Unsignalized Intersections																								
Grandview Avenue & Prospect Street																								
Eastbound	L	0.14	8.5	A	L	0.16	8.7	A	L	0.16	8.7	A	L	0.14	8.8	A	L	0.17	9.2	A	L	0.17	9.2	A
Westbound	L	0.11	8.1	A	L	0.17	8.5	A	L	0.17	8.5	A	L	0.24	9.0	A	L	0.27	9.5	A	L	0.27	9.5	A
Northbound	L	0.13	8.1	A	L	0.14	8.3	A	L	0.14	8.3	A	L	0.16	8.7	A	L	0.17	8.9	A	L	0.17	8.9	A
Southbound	L	0.22	8.4	A	L	0.24	8.8	A	L	0.24	8.8	A	L	0.28	9.7	A	L	0.32	10.3	B	L	0.32	10.3	A

Table 33 (cont'd)
2030 No Build, Build and Mitigated Scenario 2 Conditions Level of Service Analysis

Weekday AM												Weekday PM											
2030 No Action				2030 With Action				2030 Mitigated				2030 No Action				2030 With Action				2030 Mitigated			
Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Unsignalized Intersections																							
Main Street & Orchard Street W/ Orchard Street																							
L	0.02	13.5	B	L	0.03	14.4	B	L	0.03	14.4	B	L	0.06	15.7	C	L	0.10	21.4	C	L	0.10	21.4	C
L	0.05	12.3	B	L	0.06	13.7	B	L	0.06	13.7	B	L	0.07	18.2	C	L	0.11	28.2	D	L	0.11	28.2	D
L	0.00	7.8	A	L	0.01	8.0	A	L	0.01	8.0	A	L	0.00	8.3	A	L	0.01	8.8	A	L	0.01	8.8	A
T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A
L	0.01	7.9	A	L	0.01	8.1	A	L	0.01	8.1	A	L	0.04	8.2	A	L	0.04	8.7	A	L	0.04	8.7	A
T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A	T	0.00	0.0	A
Railway Road & Mall Drive / Market Street																							
				L	0.00	0.0	A	L	0.00	0.0	A					L	0.00	0.0	A	L	0.00	0.0	A
				L	0.05	8.8	A	L	0.05	8.8	A					L	0.13	9.4	A	L	0.13	9.4	A
Orchard Street Ext & Market Street[1]																							
				L	0.02	7.3	A	L	0.02	7.3	A					L	0.05	7.3	A	L	0.05	7.3	A
Orchard Street Ext & New Roadway																							
				L	0.00	0.0	A	L	0.00	0.0	A					L	0.00	0.0	A	L	0.00	0.0	A
				L	0.00	0.0	A	L	0.00	0.0	A					L	0.00	0.0	A	L	0.00	0.0	A
				L	0.03	8.4	A	L	0.03	8.4	A					L	0.08	8.6	A	L	0.08	8.6	A
				L	0.03	9.2	A	T	0.03	9.2	A					L	0.09	9.4	A	T	0.09	9.4	A
Main Street & New Roadway																							
				L	0.03	8.6	A	L	0.03	8.6	A					L	0.09	8.9	A	L	0.09	8.9	A
				L	0.00	0.0	A	L	0.00	0.0	A					L	0.00	0.0	A	L	0.00	0.0	A
Prospect Street & Railway Road																							
				L	0.00	7.3	A	L	0.00	7.3	A					L	0.00	7.4	A	L	0.00	7.4	A
				T	0.00	0.0	A	L	0.00	0.0	A					T	0.00	0.0	A	L	0.00	0.0	A
				L	0.02	8.9	A	L	0.02	8.9	A					L	0.05	9.1	A	L	0.05	9.1	A
Orchard Street Ext & Prospect Street																							
				L	0.00	7.3	A	L	0.00	7.3	A					L	0.00	7.5	A	L	0.00	7.5	A
				T	0.00	0.0	A	L	0.00	0.0	A					T	0.00	0.0	A	L	0.00	0.0	A
				L	0.00	0.0	A	L	0.00	0.0	A					L	0.00	0.0	A	L	0.00	0.0	A
				L	0.02	9.2	A	T	0.02	9.2	A					L	0.06	9.9	A	T	0.06	9.9	A
				L	0.05	9.3	A	L	0.05	9.3	A					L	0.15	10.2	B	L	0.15	10.2	B
Old Middletown Road & Orchard Street Ext																							
				L	0.00	8.3	A	L	0.00	8.3	A					L	0.00	8.3	A	L	0.00	8.3	A
				L	0.00	7.2	A	L	0.00	7.2	A					L	0.00	7.2	A	L	0.00	7.2	A

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service
[1] HCM 2000 used to generate results
Indicates notable deterioration in operating conditions

5.2 Parking

Existing Conditions

The parking utilization data, including the roadway segment and parking lot capacities and approximate number of occupied parking spaces for the weekday morning, midday and afternoon peak periods, was summarized for the on-street and off-street facilities described above to determine the existing parking utilization and demand. An off-street parking facility is considered full by users if it has 85-90% occupancy[3] depending on the parking and site layout. Tables 34 and 35 present the parking utilization for Main Street and Orchard Street on-street parking, respectively, and Table 36 presents the parking utilization for the off-street parking facilities surveyed.

As shown in Table 34, Main Street has the highest parking utilization in the weekday midday and PM peak periods with typical utilization ranging from approximately 50-100%. On-street parking on Prospect Street, shown in Table 34, has lower utilization, ranging from approximately 25-50% during a typical weekday. Orchard Street has the lowest utilization of the on-street areas surveyed, generally ranging from approximately 25-50% during a typical weekday (see Table 35). As shown in Table 36, the off-street facilities surveyed also have the highest parking utilization in the weekday midday and PM peak periods. The Town Lot located on the south side of Prospect Street and adjacent to the Metro-North Nanuet Train Station has the highest utilization between 50-90% with an average utilization of 75% during a typical weekday. The County Lot on the north side of Prospect Street, generally used for overflow parking for the train station, has a parking utilization ranging from 40-90%. The Metro-North Parking Lot, also located on the north side of Prospect Street but set back behind the post office, has the most parking availability, with parking utilization ranging from 5-30%.

[3] Litman, Todd. *Parking Management Best Practices.* APA, 2006.

Table 34: On-Street Existing Parking Weekday Utilization

Time	Thursday, January 25, 2018											
	Main Street											
	Church to Orchard East side		Church to Orchard West side		Orchard to Prospect East side		Orchard to Prospect West side		Prospect to 1st St East side		Prospect to 1st St West side	
	Capacity = 15 veh		*Capacity = 8 veh*		*Capacity = 0 veh*		*Capacity = 5 veh*		*Capacity = 17 veh*		*Capacity = 23 veh*	
	ApproxNo. of Parked Cars	Parking Utilization (%)	Approx No. of Parked Cars	Parking Utilization (%)	ApproxNo. of Parked Cars	Parking Utilization (%)	ApproxNo. of Parked Cars	Parking Utilization (%)	ApproxNo. of Parked Cars	Parking Utilization (%)	Approx No. of Parked Cars	Parking Utilization (%)
Weekday AM												
7:00 AM	7	50%	1	10%	0	0%	1	25%	3	20%	11	50%
7:30 AM	7	50%	1	10%	0	0%	1	25%	10	60%	11	50%
8:00 AM	9	60%	1	10%	0	0%	1	30%	11	70%	13	60%
8:30 AM	9	60%	1	10%	0	0%	2	40%	11	70%	13	60%
Weekday midday												
12:00 PM	11	75%	2	25%	0	0%	3	75%	17	**100%**	17	75%
12:30 PM	11	75%	4	50%	0	0%	5	**100%**	17	**100%**	17	75%
1:00 PM	11	75%	4	50%	0	0%	5	**100%**	17	**100%**	17	75%
1:30 PM	11	75%	4	50%	0	0%	5	**100%**	13	80%	17	75%
Weekday PM												
4:00 PM	11	75%	4	50%	0	0%	3	75%	12	75%	17	75%
4:30 PM	12	80%	4	50%	0	0%	3	75%	12	75%	17	75%
5:00 PM	12	80%	4	50%	0	0%	3	75%	17	**100%**	23	**100%**
5:30 PM	11	75%	6	75%	0	0%	3	75%	12	75%	23	**100%**
6:00 PM	11	75%	4	50%	0	0%	2	50%	12	75%	11	50%
6:30 PM	11	75%	4	50%	0	0%	2	50%	8	50%	17	75%
7:00 PM	7	50%	4	50%	0	0%	3	75%	8	50%	11	50%
7:30 PM	7	50%	4	50%	0	0%	1	25%	8	50%	11	50%

Notes:
Bold = Indicates parking utilization greater than or equal to 85%.

Table 35: Orchard Street Existing Parking Weekday Utilization

Time	Thursday, January 25, 2018							
	Prospect Street				Orchard Street			
	Main to Railroad North side		Main to Railroad South side		Main to Prospect West/South side		Main to Prospect East/North side	
	Capacity = 9 veh		*Capacity = 3 veh*		*Capacity = 15 veh*		*Capacity = 26 veh*	
	ApproxNo. of Parked Cars	Parking Utilization (%)	Approx No. of Parked Cars	Parking Utilization (%)	ApproxNo. of Parked Cars	Parking Utilization (%)	ApproxNo. of Parked Cars	Parking Utilization (%)
Weekday AM								
7:00 AM	2	25%	1	50%	3	25%	0	0%
7:30 AM	4	50%	1	50%	3	25%	0	0%
8:00 AM	4	50%	0	25%	7	50%	6	25%
8:30 AM	4	50%	1	50%	3	25%	6	25%
Weekday midday								
12:00 PM	4	50%	1	50%	0	0%	0	0%
12:30 PM	6	75%	1	50%	3	25%	0	0%

1:00 PM	6	75%	1	50%	3	25%	0	0%
1:30 PM	6	75%	1	50%	3	25%	6	25%
Weekday PM								
4:00 PM	6	75%	1	50%	3	25%	6	25%
4:30 PM	6	75%	1	50%	3	25%	6	25%
5:00 PM	6	75%	1	50%	3	25%	6	25%
5:30 PM	6	75%	1	50%	3	25%	6	25%
6:00 PM	4	50%	1	50%	3	25%	6	25%
6:30 PM	4	50%	1	25%	7	50%	13	50%
7:00 PM	2	25%	1	25%	7	50%	13	50%
7:30 PM	2	25%	0	0%	11	75%	13	50%

Notes:
Bold = Indicates parking utilization greater than or equal to 85%.

Table 36: Off-Street Existing Weekday Parking Utilization

Thursday, January 25, 2018						
Time	**Metro-North Lot (Lot #3) (North side of Prospect)**		**County Lot (Lot #2) (North side of Prospect)**		**Town Lot (Lot #1) (South side of Prospect)**	
	Capacity = 227 veh		***Capacity = 168 veh***		***Capacity = 274 veh***	
	Approx No. of Parked Cars	**Parking Utilization (%)**	**Approx No. of Parked Cars**	**Parking Utilization (%)**	**Approx No. of Parked Cars**	**Parking Utilization (%)**
Weekday AM						
7:00 AM	22	10%	84	50%	137	50%
7:30 AM	158	70%	117	70%	191	70%
8:00 AM	56	25%	134	80%	219	80%
8:30 AM	56	25%	134	80%	219	80%
Weekday midday						
12:00 PM	56	25%	142	**85%**	219	80%
12:30 PM	56	25%	142	**85%**	205	75%
1:00 PM	56	25%	134	80%	205	75%
1:30 PM	56	25%	134	80%	191	70%
Weekday PM						
4:00 PM	68	30%	151	**90%**	246	**90%**
4:30 PM	68	30%	142	**85%**	246	**90%**
5:00 PM	56	25%	142	**85%**	232	**85%**
5:30 PM	45	20%	117	70%	232	**85%**
6:00 PM	45	20%	109	65%	219	80%
6:30 PM	34	15%	92	55%	191	70%
7:00 PM	22	10%	84	50%	164	60%
7:30 PM	11	5%	67	40%	137	50%

Notes:
Bold = Indicates parking utilization greater than or equal to 85%.

Based on the existing weekday parking utilization data, on average there are approximately 48 and 223 parking spaces available in the on-street and off-street parking facilities surveyed, respectively.

2030 No Build Conditions

In the absence of any pending or proposed developments which could affect the parking supply and demand for the on-street and off-street parking facilities in the Project Study Area, the parking demand in the area may increase by 6%, consistent with the traffic growth projected between 2018 and 2030. Based on these estimates, existing weekday parking supply would

decrease by 3 and 13 parking spaces for the on-street and off-street parking facilities surveyed, respectively.

2030 Build Conditions

For the Proposed Action with a maximum proposed build out of approximately 759 residential units and 412,777 square feet (SF) of commercial use, the average peak period parking demand would be 1,449 spaces (Table 37). This would exceed the average available parking supply projected in the 2030 No Build condition of 255 on-street and off-street spaces and without additional facilities would result in a parking shortfall in the Project Study Area.

Table 37: Peak Period Parking Demand with Proposed Action

Building Component	Development Size		ITE Data						Total
			ITE Land Use			ITE Rate[1]	Transit Credit[2]	Net ITE Rate	
			#	Name	Independent Variable				
Residential[3]	759	Units	221	Low/Mid-Rise Apartment	Dwelling Unit	1.23	0.15	1.05	776
Commercial[4]	412.8	K SF	820	Shopping Center	1,000 SF Gross Floor Area	1.92	0.15	1.63	673
								Total Average Peak Period Parking Demand	**1,449**

Notes:
1. ITE Rates represent the average peak period parking demand (ITE Parking Generation Manual, 4th Edition)
2. A transit credit of 15% was applied to account for the proximity of transit to all land uses (Table B.3 Transportation Impact Factors, ITE Trip Generation Manual, 9th Edition).
3. Residential peak period parking demand is based on the average rate per dwelling unit for suburban low/mid-rise apartments.
4. Commercial peak period parking demand is on the fitted curve equation of the average peak parking demand for a non-Friday weekday (non-December).

Corresponding to the peak period parking demand, parking supply is referenced based on the parking requirements within the Proposed Action. The Proposed Action would generate a minimum of 5,325 parking spaces consisting of 1,197 residential parking spaces and 4,128 commercial parking spaces. This compares to a peak period parking demand of 1,449 parking spaces.

Proposed Mitigation

The residential component of the Proposed Action is considered to be self-sufficient in terms of parking in that on-site parking for all units will be provided. Upon development of the commercial portions of the Proposed Action, developers and businesses will be required to provide on-site parking as per the requirements identified in Chapter 2. Additionally, the Proposed Action calls for developing a street grid within the Project Study Area. The street grid would extend Orchard and Center Streets to the west to a new connector street to be developed directly to the east of the railroad tracks and parallel to Main Street. This new connector would eventually extend from First Street to Old Middletown Road. Each of these new streets would provide additional parking spaces.

Additionally, the Town of Clarkstown is considering purchasing Parking Lot #3 from Metro-North Railroad. If this transaction occurs, the Town of Clarkstown would place a covenant on the property before allowing for TOD 3 development. This covenant would require that the developer provide at least the same amount of parking that currently exists within the lot, in addition to whatever other parking would be required to accommodate new commercial and residential development.

5.3 Bicyclists & Pedestrians

Bicyclist and pedestrian counts were conducted at and around the Nanuet Train Station to determine existing conditions and characteristics. Counts were conducted on 3 mid-week days (Tuesday, May 22nd through Thursday May 24th) during morning and afternoon peak-hour times (5:30 AM – 8:30 AM, 4:30 PM – 7:30 PM) specifically based upon the train times for Hoboken/New York-bound Pascack Valley Line trains and the local area rush hour. With the exception of minor rain showers in the early evening of the first day of counts, and early morning of the second day of counts, the counts took place in nearly ideal late-spring weather conditions. Theoretically, such weather conditions would likely generate the maximum possible bicyclist and pedestrian activity, including for work, errands, and leisurely purposes.

The traffic counter was positioned within Lot #1 (Clarkstown Parking Lot) directly adjacent to the Nanuet Train Station platform. From this location, the counter recorded bicyclist and pedestrian activity to and from the following locations:

- Lot #2 (Rockland County Parking Lot) requiring pedestrians to cross Prospect Street west of the railroad tracks to access the station platform
- Lot #3 (Metro-North Railroad Parking Lot) requiring pedestrians to cross Prospect Street east of the railroad tracks to access the station platform
- Main Street/Downtown Nanuet requiring bicyclists or pedestrians to travel along the side of Prospect Street to the east of the railroad tracks
- Prospect Street Residential Neighborhood requiring bicyclists or pedestrians to travel along the side of Prospect Street to the west of the railroad tracks
- Non-rail-based locations, or those pedestrians utilizing Prospect Street and crossing the railroad tracks for reasons other than accessing the Nanuet Train Station.

Pedestrian activity between Lot #1 and the station platform was not recorded since they abut one another. For the purposes of the analysis, each 3-hour counting block was divided into 12 15-minute intervals in order to identify peak travel conditions.

Existing Conditions

Bicyclists

The peak hour volume of bicyclists per hour is 8, based on the maximum recorded 15-minute total of 2 bicyclists. The 2 bicyclists were recorded during the 4:30 PM – 4:45 PM afternoon time interval. In actuality, it is highly unlikely that total hourly bicyclists would reach the maximum peak hour amount under existing conditions however. From all 6 3-hour counting blocks, spread across 3 days, the total number of bicyclists recorded was 7. With the exception of the 2 bicyclists comprising the peak interval total, the remaining bicyclists were largely spread apart throughout the counting blocks, including morning and afternoon intervals. Lastly, it should also be noted that all 7 of the recorded bicyclists were travelling along Prospect Street between the residential neighborhood to the west and Downtown Nanuet, rather than to access the Nanuet Train Station.

Pedestrians

Pedestrian infrastructure within the proposed rezoning area is limited to non-existent. Besides sidewalks adjacent to Lot #1 and Lot #2 and along the Nanuet Train Station, pedestrians are largely forced to walk alongside Prospect Street and adjacent parking lots. These conditions are also evident along the Prospect Street railroad track grade crossing.

Of the total pedestrians counted, only 3% utilized or crossed Prospect Street for reasons not related to the Nanuet Train Station. This pedestrian traffic was evenly spread between the morning and afternoon time blocks, with the highest recorded 15-minute total being 3 pedestrians. This was observed during the 6:30 PM – 6:45 PM afternoon time interval, although it should be noted that most time intervals had 0 pedestrians along Prospect Street.

Approximately 97% of all recorded pedestrians were either getting to or from the Nanuet Train Station. Under accepted standards for modeling peak hour traffic, the highest 15-minute total of pedestrians would be considered and multiplied by 4 to develop a peak hour volume. However, in the case of the Nanuet Train Station, it was observed that pedestrian traffic swelled exclusively based upon an arriving train. It was also observed that pedestrian traffic was significantly higher usually during one inbound and outbound train. During the morning inbound rush hour, this was witnessed for the 6:27 AM Hoboken-bound express train. During the afternoon outbound rush hour, this was witnessed for the 6:20 PM Spring Valley-bound express train. While other train runs generated notable pedestrian traffic as well, since these 2 runs are express, skipping all local stops in New Jersey before Secaucus Junction, they provide the quickest ride to Nanuet, thus making them likely the most popular amongst Rockland County commuters. Based on these travel patterns centered around only a few train runs, this analysis considers the peak 15-minute volumes individually and not formulated into an hourly figure.

Morning Figures

The peak morning 15-minute volume of pedestrians crossing or utilizing Prospect Street was 55 pedestrians. This total was observed during the 6:15 AM – 6:30 AM time interval, with similar figures observed throughout all 3 days. Of these 55 pedestrians, 46 were entering the Nanuet Train Station from Lot #2, and as a result, crossed Prospect Street to the west of the railroad tracks. An additional 7 pedestrians were entering the Nanuet Train Station from Lot #3, and as a result, crossed Prospect Street to the east of the railroad tracks. It should be noted however that the peak number of pedestrians crossing Prospect Street from Lot #3 was 11, which was recorded during the 7:00 AM – 7:15 AM time interval.

During the peak hour count of 55 pedestrians, the remaining 2 pedestrians entered the Nanuet Train Station by walking along the side of Prospect Street from the residential neighborhood to the west. This was also the highest observed total volume from that location. While no pedestrians were observed to enter the Nanuet Train Station from the direction of Main Street/Downtown Nanuet during the peak total 15-minute volume, the peak volume of such pedestrians was 2, observed during the 7:00 AM – 7:15 AM time interval.

Afternoon Figures

The peak afternoon 15-minute volume of pedestrians crossing or utilizing Prospect Street was 125 pedestrians. This total was observed during the 6:30 PM – 6:45 PM time interval, with similar figures observed throughout all 3 days. Of these 125 pedestrians, 94 were exiting the Nanuet Train Station from Lot #2, and as a result, crossed Prospect Street to the west of the railroad tracks. An additional 30 pedestrians were exiting the Nanuet Train Station to Lot #3, and as a result, crossed Prospect Street to the east of the railroad tracks. Both of these figures were the highest observed total volumes for these 2 locations and crossings of Prospect Street.

During the peak hour count of 125 pedestrians, the remaining pedestrian exited the Nanuet Train Station by walking along the side of Prospect Street to the residential neighborhood to the west. The highest observed total volume for this location however was 2, which was recorded during the 5:15 PM – 5:30 PM and 5:45 PM – 6:00 PM time intervals. While no pedestrians were observed to exit the Nanuet Train Station in the direction of Main Street/Downtown Nanuet during the peak total 15-minute volume, the peak volume of such pedestrians was 4, recorded during the 5:45 PM – 6:00 PM time interval.

Table 38: Summary of Peak 15-Minute Factors Under Existing Conditions

	Time Period	Total
Peak 15-Minute Factor	Morning Peak-Hour	
	6:15 AM - 6:30 AM	55
Peak 15-Minute Factor	Afternoon Peak-Hour	
	6:30 PM - 6:45 PM	125

Potential Impacts

Bicyclists

Given the location of the proposed rezoning area, the number of bicycle trips generated by the Project Study Area is expected to be low. As such, a methodology[4] developed by the Virginia Department of Transportation was utilized to estimate the additional daily bicycle trips. This methodology states that for every 1,000 dense suburban multi-family dwelling units, 6 daily bicycle trips are expected to be generated. Given a total of 759 dwelling units, approximately 4 daily bicycle trips are expected to be generated throughout the entire TOD. It is assumed that this figure would include any bicycle trips occurring to access public transit.

During the 3 days, comprised of 2 3-hour intervals, of bicycle and pedestrian counts, used to establish existing conditions, a total of 7 bicyclists were recorded. This equates to a rate of about 1.16 daily bicycle trips within the proposed rezoning area. As such, this rate is expected to increase by 4 daily bicycle trips, to a total of 5.16 daily bicycle trips within and through the Project Study Area.

Pedestrians

Impacts to the number of pedestrians around the Nanuet Train Station were estimated through 2 separate methodologies in order to determine and aggregate transit- and non-transit-based pedestrian trips:

Vehicular Trip Generation-Based Methodology: Transit-Based Pedestrian Trips

The vehicular trip generation-based methodology involves estimating pedestrian rates based on the amount of vehicular traffic generated, and applying a mode conversion rate to those figures. Using the same methodology applied in Section 5.1 – Vehicular Traffic, the entire Project Study Area was divided into 7 different zones (Figure 12). The vehicular trip generation rates for each zone are summarized in Table 28. This includes a 15% conversion rate from vehicular to pedestrian mode, based on accepted standards from the 9th Edition ITE Trip Generation Manual: Transportation Impact Factors Table for the transit mode share. This 15% mode share would be applied during both the morning and afternoon rush hour periods, representing a total proportion of 30%. As indicated in the existing condition sections for pedestrians, almost all pedestrians within the proposed rezoning area do so in order to get to and from the Nanuet Train Station, making the assumption of applying transit share to pedestrian valid and reasonable. It should also be noted that in terms of transit use, this analysis exclusively considers the Nanuet Train Station and rail travel bound for Hoboken. In actuality, there is also bus service operated by Rockland Coaches which provides service to the Port Authority Bus Terminal in New York City. Although travel patterns around this commuter service are not considered for the purposes of this analysis, it is recognized that at least some of

4 https://www.researchgate.net/publication/260401878_FINAL_REPORT_RESIDENTIAL_TRIP_GENERATION_GROUND_COUNTS_VERSUS_SURVEYS

the pedestrians would walk to access this transit service, located along Middletown Road at the intersection with Route 59.

Table 39: Total & Pedestrian Trip Generation by Internal TOD Traffic Analysis Zone

Zone	Sub Zones	Total Traffic	Pedestrian Total Trips (15%)
1	TOD 1-1, TOD 1-2, TOD 1-3	118	18
2	TOD 2-1, TOD 2-2	111	17
3	TOD 3-1	129	19
4	TOD 3-2, TOD 3-3, TOD 3-4, HC-N 9, HC-N 10-1, HC-N 10	111	20
5	HC-N 7, HC-N 8, HC-N 11	42	6
6	HC-N 4, HC-N 5, HC-N 6, HC-N 6-1	48	7
7	HC-N 1, HC-N 2, HC-N 3	36	5

Based on the methodology used to determine existing conditions, the impacts to pedestrian traffic are assumed based on the delta of pedestrians crossing Prospect Street, and in this case, to get to and from the Nanuet Train Station. As such, the following internal TOD zones would require a pedestrian to cross Prospect Street to get to and from the Nanuet Train Station located south of Prospect Street:

- Zone 1: Northern Portion
- Zone 2: Northern Portion
- Zone 3: Entire Zone
- Zone 6: Entire Zone
- Zone 7: Entire Zone

Based on the proportional breakdown as a result of the traffic simulation process, the following table summarizes the total breakdown of additional trips within the morning and afternoon peak hours:

Table 40: Additional Pedestrian Trips by Time of Day

Zone	Morning Peak	Afternoon Peak
1	8	10
2	8	9
3	9	10
4	9	11
5	2	4
6	3	4
7	2	3

Next, those pedestrian trips involving utilizing or crossing Prospect Street during the morning and afternoon peak hours are extracted. This information is displayed in the following table:

Table 41: Allocation of Additional Pedestrian Trips Based on Prospect Street Utilization and Crossings

Zone	% of Zone North of Prospect Street	Corresponding Morning Peak Hour Trips	Corresponding Afternoon Peak Hour Trips
1	73%	6	7
2	69%	6	6
3	100%	9	10
4	0%	0	0
5	0%	0	0
6	100%	3	4
7	100%	2	3
	Totals	**26**	**30**

As Table 41 shows, a maximum buildout from the Proposed Action is expected to generate an additional 26 pedestrian trips during the morning and 30 pedestrian trips during the afternoon peak hour periods. However, these figures are for the entire 3-hour time blocks (5:30 AM – 8:30 AM & 4:30 PM – 7:30 PM). In order to break them down by hour, the proportional pedestrian traffic based on existing conditions is assumed. This information is provided in the following table:

Table 42: Morning & Afternoon Proportions of Pedestrian Traffic

Morning Pedestrian Proportion	
5:30 AM - 6:30 AM	35%
6:30 AM - 7:30 AM	37%
7:30 AM - 8:30 AM	27%
Afternoon Pedestrian Proportion	
4:30 PM - 5:30 PM	20%
5:30 PM - 6:30 PM	50%
6:30 PM - 7:30 PM	30%

As such, based on the maximum buildout of 759 units, Table 43 summarizes the additional number of pedestrians expected to cross Prospect Street during the morning and afternoon peak hours. This indicates a peak hour factor of 24 additional pedestrians during the morning, and 33 additional pedestrians during the afternoon.

Table 43: Additional Prospect Street Pedestrians by Peak Hour

Additional Morning Pedestrians by Hour	
5:30 AM - 6:30 AM	9
6:30 AM - 7:30 AM	10
7:30 AM - 8:30 AM	7
Additional Afternoon Pedestrians by Hour	
4:30 PM - 5:30 PM	5
5:30 PM - 6:30 PM	15
6:30 PM - 7:30 PM	10

Lastly, the additional hourly pedestrians utilizing or crossing Prospect Street are added to the existing figures. As identified in the existing conditions section, a 15-minute peak factor was calculated for the morning (55) and afternoon (125). This factor was not multiplied by 4 given the sporadic nature of pedestrian travel centered around the express train from Spring Valley, Nanuet, and Pearl River, to Secaucus and Hoboken. However, for the purposes of this analysis, the additional peak hour factor of ten morning and 15 afternoon additional TOD pedestrians is assumed to be evenly distributed across the four 15-minute time intervals. Based on this information, Table 44 summarizes the total peak 15-minute volumes expected, based on utilization/crossing of Prospect Street, and considering both existing pedestrians and those added from the proposed rezoned action. The following figure is a projection to 2030, and as such, considers a 2% increase in pedestrian traffic, primarily from the commuter parking lots, given the extra available parking capacity. This 2% increase is considered to be the Future Without the Proposed Action.

Table 44: Total Peak Morning and Afternoon Pedestrians

	Current	2030 Base (No-Build)	Additional TOD Pedestrians	TOTAL Pedestrians
Peak Morning 15-Minute Factor	55	56	3	59
Peak Afternoon 15-Minute Factor	125	128	4	132

Compared to 2030 base conditions of 56 morning and 128 peak 15-minute pedestrians, the maximum buildout of 759 units is expected to generate 5% additional morning pedestrians, and 3% additional afternoon pedestrians.

Dwelling Units-Based Methodology: Non-Transit Based Pedestrian Trips

The second methodology for estimating pedestrian trips is based solely on the number of dwelling units, and does not take into account transit use. As such, these rates can be assumed to be the rate of pedestrians around the TOD independent of the Nanuet Train Station. Based

on a methodology developed by the Virginia Department of Transportation[5], it can be assumed that every 100 dwelling units generates 4 daily pedestrian trips for the densest multi-family sites located in suburban neighborhoods. Given a total of 759 dwelling units, 30 daily non-transit pedestrian trips would be generated from the entire rezoning. Proportionally based on the number of units per internal traffic analysis zone, these trips would originate as follows:

Table 45: Non-Transit Generated Daily Pedestrian Trips by Internal Traffic Analysis Zones

Zone	Daily Pedestrian Trips
1	5
2	6
3	7
4	7
5	2
6	2
7	1
Total	**30**

Proposed Mitigation

Pedestrians

Given the addition of 30 pedestrians to Prospect Street and surrounding areas, a number of mitigations are proposed. These mitigations are designed to increase the flow and safety of pedestrian crossings while also acting as traffic calming measures. First, each TOD zone, including the development within HC-N will require ADA-accessible sidewalks along the public right-of-way. Long-term, a full street grid, particularly between Main Street and the railroad tracks, would be developed. The street grid would extend Orchard and Center Streets to the west to a new connector street to be developed directly to the east of the railroad tracks and parallel to Main Street. This new connector would eventually extend from First Street to Old Middletown Road. Each of these new streets would have a maximum speed limit of 25-30 miles per hour in order to discourage thru use for automobiles and encourage use by pedestrians.

Streetscape and pedestrian upgrades are also proposed for existing and new streets. In the short-term this includes the addition of lighting, decorative furniture, and directional signage, designed to create a more pedestrian-friendly environment. In the long-term proposed upgrades include the development of a median boulevard along Prospect Street, and expansions of green space in and around the existing Veteran's Memorial Garden.

Bicyclists

Those proposed mitigations, described above for pedestrian accommodation, are also applicable to bicyclists. This includes the realization of a street grid, and a boulevard median

5 www.researchgate.net/publication/260401878_FINAL_REPORT_RESIDENTIAL_TRIP_GENERATION_GROUND_COUNTS_VERSUS_SURVEYS

along Prospect Street designed to slow vehicular traffic. Along Main Street exclusive bicycle lanes/shared lane markings are also proposed. Within the TOD zones, new residential development will also require at least one bicycle rack per an established number of units.

5.4 Public Transportation

The Project Study Area is served by Transport of Rockland's bus Routes 59 and 93, as well as the Pascack Valley commuter rail line of New Jersey Transit.

Transport of Rockland's Route 59 (Suffern – Nyack) services Middletown Road at First Street, adjacent to the proposed rezoning. Service is operated between 6:00 AM and 12:45 AM from Monday through Saturday on 20-60 minute headways depending on the time of the day. Service is operated between 8:00 AM and 11:45 PM on Sundays 30-60 minute headways depending on the time of the day. Route 93 (Pearl River – Sloatsburg) services Middletown Road at First Street, adjacent to the proposed rezoning. Service is operated between 6:00 AM and 10:45 PM from Mondays through Saturdays on hourly headways, and between 8:00 AM and 8:00 PM Sundays on hourly headways. Service on Route 59 is operated on 40 foot buses which have a capacity of 38 seated passengers, 28 standing passengers, and space for 2 ADA passengers. Service on Route 93 is operated on 35 foot buses which have a capacity of 31 passengers, 23 standing passengers, and space for 2 ADA passengers.

The Pascack Valley Nanuet Train Station is maintained by Metro-North Railroad, with service operated by New Jersey Transit. Service is operated between Spring Valley and Hoboken, with intermediate stops in Pearl River, to the south of Nanuet, as well as multiple stops in Bergen County, New Jersey, and Secaucus where passengers can transfer to New York Penn Station-bound trains. Service is operated between 5:00 AM and 12:30 AM Monday through Friday, and 6:00 AM and 9:30 PM on Saturdays and Sundays. Service is primarily operated around New York inbound/outbound peak rush hours. Frequencies are as often as approximately 15-20 minutes during this time period. Outside of this however, frequencies range from 1-2 hours, with a particularly large gap in inbound weekday service from 3:51 PM to 9:20 PM, due to the Pascack Valley Line being comprised of a single track.

Existing Conditions

Metro-North Railroad Nanuet Train Service

Existing conditions on commuter rail ridership figures was acquired from Metro-North Railroad. While service at the Nanuet Train Station is operated by New Jersey Transit along its Pascack Valley Line, those train stations within Rockland County along the Pascack Valley Line, including Nanuet, are owned by Metro-North Railroad.

Existing conditions are broken out by peak morning inbound (Hoboken/New York City-bound) rail service, and peak afternoon service bound for Spring Valley. In 2017, average inbound daily ridership from Nanuet was 644 passengers, of which, 88% (546 passengers) traveled during the

morning peak runs. Those inbound peak runs generating the highest average daily ridership and corresponding load capacities on the inbound trains is shown in the following table:

Table 46: Nanuet Inbound Morning Rail Ridership & Loading[3]

Train	Destination	Service Type	Daily Boardings	Load Factor	Train Capacity	# of Train Cars
6:21 AM	Hoboken	Express	200	86%	460	4
7:43 AM	Hoboken	Local	119	57%	460	4
7:16 AM	Hoboken	Semi-Express	82	82%	805	7

During the same time period, average outbound daily ridership to Nanuet was 556 passenger, of which, 64% (354 passengers) traveled during the morning peak runs. Those outbound peak runs generating the highest daily ridership are shown in Table 47. Loading capacity was not recorded for outbound ridership at Nanuet given that such figures would likely be influenced by ridership at New Jersey Pascack Valley Line stations. [6]

Table 47: Nanuet Outbound Afternoon Rail Ridership[3]

Train	Destination	Service Type	Daily Alightings
5:32 PM	Spring Valley	Express	154
4:39 PM	Spring Valley	Local	74
6:18 PM	Spring Valley	Local	46

As the above figures show, morning inbound peak ridership is 200 passengers (along the 6:21 AM run), and afternoon outbound peak ridership is 154 passengers (along the 5:32 PM run). For the 6:21 AM inbound run, the loading factor was 86%. It should be noted however that certain runs, while not generating the highest ridership, did generate higher inbound loading factors. This was particularly evident along the 7:43 AM (109% loading factor) and 7:29 AM (92% loading factor). At the Nanuet Train Station however, these 2 runs only generated 20 and 39 passengers respectively. This indicates for these inbound trains that larger concentrations of passengers board at New Jersey train stations closer to Hoboken and Secaucus and that Nanuet passengers would easily be able to sit, as opposed to stand for the duration of the train ride. As such, these particular runs are not further considered as part of this analysis. It should also be noted that travel to and from Spring Valley was not considered given the low levels of such ridership.

Transport of Rockland Bus Service

Existing conditions of bus service and ridership was acquired from Transport of Rockland. During 2017, Route 59 bus service had 895,814 annual passengers, with 2,750 weekday daily

[3] Note that since ridership estimates were recorded in 2017, there have been some minor adjustments in departure times for each train run. As such, 2017 ridership figures were applied according to their corresponding present-day (July, 2018) runs.

passengers; 2,086 Saturday daily passengers; and 1,487 Sunday daily passengers. Route 93 bus service had 141,298 annual passengers, with 456 weekday daily passengers, 287 Saturday daily passengers, and 176 Sunday daily passengers.

One bus stop is located within the study area of the Proposed Action – the bus stop located at the intersection of Middletown Road and First Street. This stop location is serviced by the Route 93 that operates from Pearl River to Sloatsburg via an east-west routing structure. Table 48 summarizes the average observed total boarding and alighting counts for eastbound (EB) and westbound (WB) services in the AM Peak (5:00 AM to 9:59 AM), Midday (10:00 AM to 2:59 PM), PM Peak (3:00 PM to 6:59 PM), the Evening (7:00 PM to service closure) and a daily total for Monday thru Saturday services. The average number of boardings and alightings per run is also provided, and is based on the number of stops in a given time period.

Table 48: Observed Passenger Boardings and Alightings at Middletown Toad and First Street Bus Stop for the TOR 93 Service

	EB Boardings	EB Alightings	WB Boardings	WB Alightings
AM Peak	3	24	5	0
Average Per AM Run	1.0	8.0	1.7	0.0
Midday	3	27	14	2
Average Per Midday Run	0.6	5.4	2.8	0.4
PM Peak	9	24	33	1
Average Per PM Run	2.3	6.0	8.3	0.3
Evening	2	6	10	1
Average Per Evening Run	0.5	1.5	3.3	0.3
Total	**17**	**81**	**62**	**4**
Average Per Run	**1.1**	**5.1**	**4.1**	**0.3**

Paratransit service within the Transport of Rockland bus system is provided through Transportation Resources, Intra-county, for Physically Disabled and Senior citizens (TRIPS). In 2017, 6,305 annual paratransit trips were generated from within Nanuet. TRIPS is operated within ¾ of a mile of each fixed route for residents with physical, mental, developmental or intellectual disabilities or senior citizens aged 60 or over. While daily figures were unavailable for TRIPS, this roughly translates to approximately 20 daily paratransit trips given TRIPS service availability from Monday through Saturday.

Potential Impacts

Metro-North Railroad Nanuet Train Service

Impacts to rail ridership at the Nanuet Train Station are estimated based on a 15% rate of the total traffic and, based on accepted standards from the 9th Edition ITE Trip Generation Manual: Transportation Impact Factors Table. Table 49 provides the corresponding transit trip generation by internal TOD traffic analysis zone. It should be noted that for the purposes of this

analysis, the 15% of transit trips is expected to be applied to the Nanuet Train Station. In reality however, a number of trips may be applied along Coach USA Rockland Coaches bus service bound for the Port Authority Bus Terminal in New York, and other available transit services within the area.

Table 49: Total & Transit Trip Generation by Internal TOD Traffic Analysis Zone

Zone	Sub Zones	Total Traffic	Transit Total Trips (15%)
1	TOD 1-1, TOD 1-2, TOD 1-3	118	18
2	TOD 2-1, TOD 2-2	111	17
3	TOD 3-1	129	19
4	TOD 3-2, TOD 3-3, TOD 3-4, HC-N 9, HC-N 10-1, HC-N 10	111	20
5	HC-N 7, HC-N 8, HC-N 11	42	6
6	HC-N 4, HC-N 5, HC-N 6, HC-N 6-1	48	7
7	HC-N 1, HC-N 2, HC-N 3	36	5

Based on the proportional breakdown as a result of the traffic simulation process, the following table summarizes the total breakdown of additional trips within the morning, afternoon peak hours:

Table 50: Additional Transit Trips by Time of Day

Zone	Morning Peak	Afternoon Peak
1	8	10
2	8	9
3	9	10
4	9	11
5	2	4
6	3	4
7	2	3
Total	**41**	**51**

As Table 50 shows, a maximum buildout from the TOD rezoning is expected to generate an additional 41 transit trips during the inbound morning commute and 51 transit trips during the outbound afternoon peak hour periods. However, these figures are for the entire peak morning (approximately 5:45 AM to 8:15 AM) and afternoon (approximately 5:30 PM to 8:00 PM) time periods, based around New Jersey Transit arrival and departure times at Nanuet. As indicated from the existing conditions analysis, the top 3 inbound morning and outbound afternoon trains out of and into Nanuet account for approximately 74% of peak hour ridership. The remaining 26% is then divided amongst the other morning and afternoon train runs. Based on these ridership observations, the additional transit trips during the inbound morning and outbound afternoon peak hours are assumed to be divided amongst the 3 busiest runs from both time periods, with the remaining 26% allocated to all remaining runs. The corresponding impact to transit use at the Nanuet Train Station is shown in the following table:

Table 51: Impact of Proposed Action to Transit Ridership

Train	2030 Base Daily Boardings (2030 No Build)	% of Peak Hour Boardings	Additional Riders	Total Projected 2030 Boardings
Inbound Morning				
6:21 AM to Hoboken	200	37%	15	**215**
7:43 AM to Hoboken	119	23%	9	**128**
7:16 AM to Hoboken	82	15%	6	**88**
Other	145	26%	11	**156**
Outbound Afternoon				
5:32 PM to Spring Valley	154	42%	21	**175**
4:39 PM to Spring Valley	74	20%	10	**84**
6:18 PM to Spring Valley	46	12%	6	**52**
Other	96	26%	14	**110**

As Table 51 shows, a maximum buildout from the TOD rezoning is expected to generate 15 additional passengers on the 6:21 AM inbound express train and 21 additional passengers on the 5:32 PM outbound express train, the 2 busiest trains in terms of Nanuet ridership. This equates to 8% and 14% increases respectively. Outside of the 3 busiest inbound morning and outbound afternoon trains, ridership is expected to generate 11 and 14 passengers respectively across remaining peak hour trains.

While the raw numerical and percentage increases in ridership at the Nanuet Train Station are useful, actual train capacity is perhaps most important given that this would determine if Nanuet riders are able to find a seat or are forced to stand. As previously stated, this information is primary relevant for the inbound morning commute. During the outbound commute back to Nanuet, passengers would board in bulk at Hoboken or Secaucus Junction, all of which would likely vie for a seat regardless of which station they are looking to alight at. As such, any major increases or decreases to ridership at stations closer to Hoboken or Secaucus and outside the context of Nanuet, would affect the ability of Nanuet passengers to acquire a seat.

In order to determine the effects on the ability of Nanuet passengers to acquire a seat on the inbound commute towards Hoboken, the aggregate of passengers boarding at Spring Valley (the one stop before Nanuet) and Nanuet, considering 2030 estimates including the maximum buildout, are considered. This information is then coupled with current ridership capacity for each train, based on the capacity of New Jersey Transit's rail cars, and the number cars provided for each train run. Based on data from Metro-North Railroads, each rail car has a capacity of 115 passengers. The results are show in the following table:

Table 52: 2030 Projected Train Capacity at Nanuet Train Station

Train	2030 Spring Valley Ridership	Nanuet Total Projected 2030 Boardings	Spring Valley + Nanuet 2030 Ridership	# of Cars/Train Capacity	Capacity at Nanuet Station
6:21 AM to Hoboken	21	215	236	4 / 460	**51%**
7:43 AM to Hoboken	17	128	145	4 / 460	**32%**
7:16 AM to Hoboken	14	88	102	7 / 805	**13%**

As Table 52 shows, any projected increases in train ridership from the Nanuet TOD should not impact the ability of a Nanuet passenger to acquire a seat on their trip towards Hoboken. Taking into account those riders already on the train (from Spring Valley) when the train arrives in Nanuet, as well as the passengers boarding at Nanuet, the trains will still have abundant capacity.

Any negative effects from adding additional riders on these trains are likely to be experienced by passengers boarding at stations closer to Hoboken during the morning commute. However, these negative effects on passengers boarding at stations closer to Hoboken are likely to be reduced given that the inbound busiest run between Nanuet and Hoboken (the 6:21 AM inbound train) and third busiest run are express and semi-express trains. As such, estimates as to the effects on capacity at stations closer to Hoboken are estimated based on the busiest inbound local train (7:43 AM) into Hoboken that stops at Nanuet. With a capacity for 460 passengers and a total of 119 average daily boardings, there is a remaining capacity of 341. Based on Metro-North Railroad ridership statistics, this inbound run comprises 18% of total daily ridership. For the purposes of this analysis and given the availability of average daily boardings for all Pascack Valley Line Stations, it can be assumed that this particular run comprises 18% of boardings for every station. Based on this methodology, it is estimated that New Jersey Transit would encounter capacity issues beyond the Westwood Train Station, where it is estimated that 483 passengers would be onboard. Similarly on the afternoon peak-hour commute, capacity issues would be estimated to dissipate beyond the Westwood Train Station for local trains. In terms of Nanuet passengers however, impacts would largely vary based on whether they boarded in Hoboken or Secaucus Junction, and their overall ability to obtain a seat first.

Nanuet Train Station Platform Capacity

Lastly, the effects of the maximum buildout of the TOD rezoning on the Nanuet Train Station platform are considered. The entire Nanuet Train Station has an approximate area of 6,200 square feet. In order to estimate the effects of additional passengers, a methodology developed for Transport for New South Wales was utilized.[7] Similar to levels of service for vehicular traffic, the methodology proposes levels of service (translated from square meters to square feet) was assumed. These are provided in Table 53. Based on the square footage LOS in Table 52, a maximum boarding of 236 passengers waiting to board their train (projected 2030

[7] http://images.smh.com.au/file/2013/09/23/4770519/trains.pdf

boardings for the 6:21 AM Hoboken-bound express train), and the size of the extent of the Nanuet Train Station platform, each passenger is expected to have approximately 26 square feet of personal space. This corresponds to LOS A according to the above methodology, allowing for free circulation without the need to physically disturb other passengers. In reality, such figures are expected to be higher given that many passengers are still likely to wait in their cars or within Parking Lot #1. As such, only negligible impacts to the Nanuet Train Station are expected.

Table 53: Estimated LOS for Train Station Platform Capacity

Level of Service	Square Feet per Passenger	Description
A	> 13	Standing and free circulation possible without disturbing others.
B	10 to 13	Standing and partial circulation possible without disturbing others.
C	8 to 10	Standing and restricted circulation possible without disturbing others.
D	3 to 8	Standing with very limited circulation possible.
E	2 to 3	Almost no movement possible, with direct physical contact with others.
F	< 2	No movement possible, with direct physical contact with others.

Transport of Rockland Bus Service

For the purposes of this analysis, a transit-usage rate of 9.2% for commuters in Nanuet, as defined by the U.S. Census, was used to determine transit demand. This is a slightly lower rate than the 15% transit-usage rate assumed for commuter rail service analyses and defined by ITE. This percentage was chosen since the Nanuet Train Station serves as the primary factor in the citing of the Proposed Action as well as the expanded service area of the commuter rail service compared to the commuter bus service, and because this would be a more accurate reflection of potential bus transit demand as related to the Proposed Action.

Given an expected increase in population of 1,226, it is expected that 113 additional daily passengers could ride either Route 59 or Route 93 on a daily basis. Based on the proportions of ridership on the entire lengths of Route 59 and Route 93, it is assumed that 86% (98 total) of these passengers would use the Route 59 service and 14% (15 total) of these passengers would use the Route 93 service. On an hourly weekday basis, this would translate to approximately 5 passengers per hour for the Route 59 service (based on service operated on weekdays between 6:00 AM and 12:45 AM), and approximately 1 passenger per hour for the Route 93 service (based on service operated on weekdays between 8:00 AM and 11:45 PM).

Impacts on TRIPS paratransit service are estimated based on the proportional increase in population for Nanuet. The expected population increase of 1,226 represents an approximately 7% increase in population. Given a current total of 6,305 annual trips originating from Nanuet (20 daily trips based on six days per week of operations), it is expected that an additional 2 daily passengers would use the TRIPS service.

Proposed Mitigation

Analysis of existing capacity at the Nanuet Train Station and ridership along Pascack Valley Line trains shows that the effects to Nanuet passengers is minimal. Any effects as a result of increased passengers from a maximum buildout of the Proposed Action rezoning are expected to be incurred more so by passengers boarding at stations closer to Hoboken where train capacity is already taken up. As such, any actions on the part of New Jersey Transit to add additional train capacity would likely have to consider increases in ridership from other stations as well. Therefore, no significant adverse impacts to the provision of transit service are anticipated as a result of the Proposed Action, and no mitigation measures are anticipated to be required by the Town of Clarkstown.

In terms of Transport of Rockland bus service, the need for mitigation is assessed based on the estimated capacity of the service's vehicles. On Route 59, the 895,814 annual passengers translates to 17,227 weekly passengers. This weekly figure is then divided by the total number of weekly runs (consisting of 41 weekday daily runs, 29 Saturday runs, and 27 Sunday runs). The resulting total is 8 passengers per run as compared to a total vehicle capacity of 66. This indicates that the service would be able to seamlessly absorb the projected increase of 5 passengers per hour. On Route 93, the 141,298 annual passengers translates to 2,727 weekly passengers. This weekly figure is then divided by the total number of weekly runs (consisting of 16 weekday and Saturday daily runs and 9 Sunday runs). The resulting total of 3 passengers per run is compared to a total vehicle capacity of 54. This indicates that the service would be able to absorb the projected increase of 1 passenger per hour.

Additionally, it is also anticipated that the ADA service would be able to absorb the increase of 2 daily passengers. Any mitigations would come in the need for expanded vehicle capacity or vehicle operators at the further discretion of Transport of Rockland.

6.0 Impact to Community Character

Existing Conditions

The Project Study Area consists of 37.11 acres across 72 parcels located within the LIO, MF, RS, and HC zoning districts as described in Chapter 2 of this document. This includes most of the parcels within the Nanuet central business district, and the light industrial parcels along and off of Prospect Street that serve as a buffer between the Nanuet central business district and the single family residential neighborhood to the west further along Prospect Street. At the center of the Project Study Area is the Nanuet Train Station, including an on-site parking lot (Parking Lot #1). Two additional parking lots are located on the other side of Prospect Street within the light industrial portion of the Project Study Area.

Prospect Street, the primary east-west artery through the Project Study Area, consists primarily of light industrial uses. To the west of the railroad tracks, Prospect Street consists of 3 light industrial buildings, and the entrances to the Nanuet Train Station Parking Lots #1 and #3. All 3 of the light industrial buildings are vacant with overgrown brush and deteriorating pavement surrounding each building. Currently, the only portion of this part of Prospect Street with sidewalks is along the Nanuet Train Station Parking Lot #1, with painted markings serving as a walkway along the southern portion of Prospect Street in front of two of the vacant light industrial offices. Sidewalks resume outside of the Project Study Area along the southern portion of Prospect Street in the residential area to the west. Fisher Avenue, located off of Prospect Street and adjacent to Parking Lot #3, contains a mix of single family residences, maintained to varying degrees, a smaller occupied light industrial building, and a large contractor yard. Imagery of this section of the Project Study area is shown in Figures 18 and 19.

Figure 18: Existing Conditions Northbound Along Fisher Avenue

Figure 19: Existing Conditions Along Westbound Prospect Street

To the east of the railroad tracks, Prospect Street consists of the 1-story Nanuet Post Office, and a former fire house that is currently listed up for sale (see Figure20). The Nanuet Veterans Memorial, adjacent to the Nanuet Train Station and consisting of a flagpole, monument statue, and small garden, is also located along Prospect Street. Similar to the western portion of Prospect Street, sidewalks are inconsistent, with the only continuous section being in front of the Nanuet Post Office. Prospect Street also contains the rear of the Nanuet central business district buildings and additional parking spaces for those businesses.

Figure 20: Existing Conditions Along Eastbound Prospect Street

Main Street is the primary north-south artery through the Project Study Area and consists of the Nanuet central business district. This portion of the Project Study Area consists of older single- and mixed-use buildings with direct frontage along sidewalks, as well as a few unimproved vacant lots. Buildings range in height from 1- to 3-stories, with the 1-story buildings consisting exclusively of commercial uses and the 2- and 3-story buildings consisting of mixed uses. A number of sites along the southern portion of Main Street allow for on-site parking in between the sidewalks and actual buildings. These buildings are aesthetically maintained at varying degrees and include additional parking without any sidewalks or pedestrian amenities. Aesthetic features throughout the central business are primarily in the form of decorative lampposts, with limited landscape present at the discretion of each property owner. There is however significant landscaping in the form of bushes and trees at the northern end of Main Street alongside the Normandy Village Condominiums site. Orchard Street, behind the Nanuet central business district and connecting to Prospect Street adjacent to the train tracks consists of light industrial office buildings. A visual of this portion of the Project Study area is displayed in Figure 21 and 22.

Figure 21: Existing Conditions Northbound Along Main Street

Figure 22: Existing Conditions Southbound Along Main Street

Potential Impacts

Impacts to community character are expected to occur when developers undertake construction according to the guidelines within the Proposed Action. Broadly, the results of the Proposed Action are aimed at creating a walkable, mixed-use neighborhood around the Nanuet Train Station, with landscaping, continuous sidewalks, and other pedestrian amenities.

The Proposed Action consists of 4 new zones. TOD 1 would encompass the extreme western portion of the Project Study Area, including along Fisher Avenue. Specifications for TOD 1 are provided in Chapter 2. Under TOD 1, Fisher Avenue would consist of residential townhouses of 2- and 3-stories, with a maximum height of 35 feet. Sidewalks with trees would line at least one side of Fisher Avenue, along with front and side setbacks of 35 and 10 feet respectively. The purpose of this neighborhood would be to provide a transition between the denser TOD areas to the east, and the single-family residential neighborhood to the west. The following figures provide an example and a rendering of the type of development that would be expected to occur in this portion of the Project Study Area:

Figure 23: Local Example of TOD 1 Architectural Design

Figure 24: Rendering Perspective Northbound Along Fisher Avenue

TOD 2 would encompass the remaining portion of the Project Study Area to the west of the train tracks, including much of Prospect Street. Specifications for TOD 2 are provided in Chapter 2. Under TOD 2, Prospect Street would consist of attached mixed-use buildings of up to 4 stories, with a maximum height of 45 feet. Sidewalks with trees would line both sides of Prospect Street, with smaller front setbacks of 5 feet creating for the feeling of a modern urban neighborhood. Pedestrians and drivers along Prospect Street would primarily visualize a combination of landscaping and mostly residential units of each buildings. Since 10% of the ground floor is allowed for commercial uses, businesses such as small shops or cafes would also be visible, particularly along the corners of each building. A rendered perspective of the Proposed Action in TOD 2 is displayed in the following figure:

Figure 25: Rendering Perspective of Westbound Along Prospect Street

TOD 3 would encompass the area of the Project Study Area to the east of the train tracks and up to, but not including the Nanuet central business district. Specifications for TOD 3 are provided in Chapter 2. Under TOD 3, new streets would be developed to form a continuous grid similar to that created by Orchard Street connecting Main Street and Prospect Street. Each street, including Prospect Street, would consist of attached mixed-use buildings of up to 4 stories, with a maximum height of 45 feet. Sidewalks with trees and other landscaping would line both sides of each street, with smaller front setbacks of 5 feet creating for the feeling of a modern urban neighborhood. Pedestrians and drivers along Prospect Street would visualize a combination of landscaping and commercial space given the allowance of commercial space on the entire ground floor of each building. The Nanuet Veterans Memorial would remain intact within the same location, with new developments aesthetically accommodating it. A rendered perspective of the Proposed Action in TOD 3 is displayed in the following figure:

Figure 26: Rendering Perspective Eastbound Along Prospect Street

The zoning requirements within the Proposed Action are also intended to address street canopy effects. Under TOD 2 and TOD 3, which call for smaller front setbacks, the 4th floors are to be setback at least an additional 10 feet (15 feet from the actual lot line). From the perspective of a pedestrian or driver along each street, this would create the effect of each building appearing to be 1 story shorter than how it is in actuality as these top floors would not be visible from the street level.

The following figure illustrates an example of the architectural design for TOD 2 and 3.

Figure 27: Local Example of TOD 2 and 3 Architectural Design

HC-N would encompass Main Street and the easternmost portions of the Project Study Area, including those areas comprising the Nanuet central business district. Specifications for HC-N are provided in Chapter 2. Under HC-N, this portion of the Project Study Area would maintain most of its existing regulations with the primary difference being an increase in allowable building height from 28 feet to 35 feet and increased residential density from 8 to 16 units per acre. Upgrades to sidewalks and landscaping would be included when developers undertake improvements to one or more property. As such, under a full buildout of the Proposed Action, the Nanuet central business district would aesthetically look similar to the TOD 3 area, with pedestrians and drivers visualizing a combination of landscaping and commercial businesses, with residences above.

The following figures provide an example and renderings of the type of development that would be expected to occur in the HC-N district:

Figure 28: Local Example of HC-N Architectural Design

Figure 29: Rendering Perspective Northbound Along Prospect Street

Figure 30: Rendering Perspective Southbound Along Prospect Street

Proposed Mitigation

Zoning specifications included in the Proposed Action already consider and include mitigations for impacts to community character. This includes considerations for pedestrian amenities, landscaping, and vertical setbacks to reduce canopy effects. Furthermore, the current community character, especially around the Nanuet Train Station is considered to be negative, given a lack of economically productive uses, a lack of pedestrian amenities, and a lack of aesthetically pleasing visuals. Therefore no additional mitigations are proposed.

7.0 Alternatives

7.1 No Action Alternative

Under the 'No Action' alternative, current zoning within the Project Study Area would remain the same. The 72 parcels comprising the 37 acres within the Project Study Area consist primarily of LIO, MF-1, and HC. Assuming no changes to the specifications of these zones, an assessment of future uses and overall neighborhood character for the Project Study Area is as follows.

Within the area to be zoned as TOD 1, LIO uses are permitted. As per the Town of Clarkstown municipal code, uses allowed within LIO include industrial land uses with related showrooms and offices, research & development test laboratories, schools for industrial or business training, professional administrative, governmental or business offices, warehouses and wholesale distribution centers, public utility substations, automotive car dealerships, newspaper printing facilities, tennis clubs, health clubs, carnivals, circuses, automotive and machinery repair shops, social halls, family recreation centers, and mini warehouses. It should be noted that a small number of single family residences also exist in this portion of the Project Study Area. Based on local and regional market trends, it is expected that future uses would consist of contractor supply yards and small offices, in addition to those existing single family residences. Within supply yards and facilities, area contractors would store equipment and materials for ongoing and planned projects. Such uses may also involve the presence of small-to-medium size trucks to load and unload equipment and materials during the daytime weekday and weekend hours.

Within the area to be zoned as TOD 2, LIO and MF-1 uses are permitted. As per the Town of Clarkstown municipal code, uses allowed within LIO include industrial land uses with related showrooms and offices, research & development test laboratories, schools for industrial or business training, professional administrative, governmental or business offices, warehouses and wholesale distribution centers, public utility substations, automotive car dealerships, newspaper printing facilities, tennis clubs, health clubs, carnivals, circuses, automotive and machinery repair shops, social halls, family recreation centers, and mini warehouses. Uses allowed within MF-1 include dense, attached housing developments. It should be noted that there is no residential development existing currently within this portion of the Project Study Area. Rather, the site zoned for MF-1 consists of light industrial buildings and parking lots. Additionally, this portion of the Project Study Area contains the Nanuet Train Station, Town of Clarkstown commuter parking lot, and Rockland County commuter parking lot. It is expected that the Nanuet Train Station and commuter parking lots would remain 'as is'. The remaining area zoned for LIO would likely consist of contractor supply yards and small offices. Under such uses, area contractors would store equipment and materials for ongoing and planned projects. Such uses may also involve the presence of small-to-medium size trucks to load and unload equipment and materials during the daytime weekday and weekend hours. The remaining areas zoned for MF-1 could continue to remain vacant, or become parking for a contractor supply yard or facility. Given the presence of the Rockland County commuter taking up a large

portion of the MF-1, it is unlikely that any residential development would occur in this portion of the Project Study area within the foreseeable future.

Within the area to be zoned as TOD 3, LIO and HC uses are permitted. As per the Town of Clarkstown municipal code, uses allowed within LIO include industrial land uses with related showrooms and offices, research & development test laboratories, schools for industrial or business training, professional administrative, governmental or business offices, warehouses and wholesale distribution centers, public utility substations, automotive car dealerships, newspaper printing facilities, tennis clubs, health clubs, carnivals, circuses, automotive and machinery repair shops, social halls, family recreation centers, and mini warehouses. Uses allowed within HC include mixed use residential, with commercial uses including agencies, banks, laundromats, funeral homes, hotels, bed & breakfasts, maintenance and repair shops, personal care, pet grooming, professional offices, veterinary services, bars, taverns, landscaping and gardening shops, and restaurants. Auditoriums, parks, cultural centers, schools, utility stations, and parking are also permitted. It should be noted that this portion of the Project Study Area contains the Metro-North Railroad commuter parking lot and the Nanuet Post Office. It is expected that the commuter parking lot and Nanuet Post Office would remain 'as is'. The remaining area is zoned for HC and would likely continue to consist of light industrial lots or contractor supply yards and small offices. Under such uses, area contractors would store equipment and materials for ongoing and planned projects. Such uses may also involve the presence of small-to-medium size trucks to load and unload equipment and materials during the daytime weekday and weekend hours. Given that most businesses comprising HC are located along Main Street, it is unlikely that new retail businesses would be established along Orchard Street or Prospect Street within this portion of the Project Study Area.

Within the area to be zoned as HC-N, HC uses are primarily permitted. As per the Town of Clarkstown municipal code, uses allowed within HC include mixed use residential, with commercial uses including agencies, banks, laundromats, funeral homes, hotels, bed & breakfasts, maintenance and repair shops, personal care, pet grooming, professional offices, veterinary services, bars, taverns, landscaping and gardening shops, and restaurants. Auditoriums, parks, cultural centers, schools, utility stations, and parking are also permitted. It is expected that this portion of the Project Study Area would remain 'as is'. Developers and property owners would be permitted to construct mixed-use residential and commercial buildings up to 28 feet in height. As such, this portion of the Project Study area would continue to function as a downtown-style central business district. Given the proximity to larger commercial and regional shopping centers including the Shops at Nanuet however, this portion of the Project Study Area would continue to struggle to attract and retain businesses.

7.2 Expansion of Proposed New Zoning to Include Nanuet Mall South Property

Under an expanded adoption of the Proposed Action, the Town of Clarkstown would consider expanding the rezoning to include 400-460 Nanuet Mall South. The parcel, consisting of 266,874 square feet, is currently occupied by The Shoppes at Market Street shopping center,

adjacent to the Shops at Nanuet. Through this alternative, this set of parcels would be rezoned to TOD 3, to match the set of parcels directly to the south.

Estimations as to the impacts of this additional rezoning on community services, infrastructure, transportation, and community character are proportionally estimated based on buildout specifications for the square footage of TOD 3. Based on buildout specifications, this parcel is expected to add 306 units. Given the average household proportion of 1,226 residents projected to be added from 759 units (a proportion of 1.66), an additional 508 residents would be added to the Nanuet TOD. The number of additional residents in the Nanuet TOD would become 1,734, indicating a 9.4% increase in population, as opposed to 6.7% for the Hamlet of Nanuet. For the entire Town of Clarkstown, this would equate to a 2% increase in total population.

Based on this addition of 508 residents, the potential impacts are as follows:

Community Services

Town of Clarkstown Police Department

The additional increase in population is expected to decrease the proportion of police officers to Town of Clarkstown residents from 1:565 under the original Proposed Action to 1:568, a decrease of less than 1%. This would increase the amount of police officers required to bring the Town of Clarkstown within ULI accepted standards for police officers to residents from 18 to 20 when compared to the Proposed Action. Even with this increase, the additional change in population is still likely to be accommodated by the Town of Clarkstown Police Department. Therefore, no significant adverse impacts to the Town of Clarkstown Police Department are anticipated.

Nanuet Fire Department

The additional increase in population is also expected to increase the number of calls to the Nanuet Fire Department from 661 under the original Proposed Action (an increase of 41 calls proportionally based on the population increase) to 678. Given that the TOD 3 specifications would be applied to the rezoning expansion, all development would occur within the Town of Clarkstown's height limit of 4 stories.

The additional increase in population is expected to decrease the proportion of fire department personnel to Nanuet residents from 1:239 under the original Proposed Action to 1:245, a decrease of under 3%. Even with this increase, Nanuet is well within those standards set forth by ULI for fire department personnel to Nanuet residents. Therefore, no significant adverse impacts to the Nanuet Fire Department are anticipated.

Nanuet Emergency Medical Services/Nanuet Community Ambulance Corporation

The additional increase in population is expected to increase the number of calls to Nanuet EMS from 2,984 under the original Proposed Action (an increase of 187 calls proportionally

based on the population increase) to 3,060 which accounts to an additional annual increase of 76. On a daily basis, this still accounts to less than 1 call per day on average.

The additional increase in population is also expected to decrease the proportion of Nanuet EMS personnel to service area residents from 1:9,315 under the original Proposed Action to 1:9,365, a decrease of under 1%. As such, the amount of additional Nanuet EMS personnel required to bring the Nanuet EMS service area to within ULI standards would remain at 2. As a result, the adoption of the TOD Zoning is not anticipated to have a significant adverse impact on the provision of emergency medical services. Therefore, no significant adverse impacts to the provision of emergency medical services in Nanuet.

Schools: Nanuet Union Free School District

The Alternative Action would increase student enrollment by 36 to 87 additional students to the Nanuet Union Free School District. Along with the 52 to 127 students attributed to the Proposed Action that was calculated previously; a total of range of 88 to 214 additional pupils may be added to student enrollment as a result.

Utilizing the NUFSD's 2016-2017 assessment of District costs of $28,240 per student, the Alternative Action could be attributed to an additional $2,485,120.00 - $6,043,360.00 in costs for District student spending, and generate a total student enrollment of 1,948 to 2,074 for the 2026-27 school year. When compared to current enrollment (2,189 pupils), the addition of the Alternative Action would still generate a net decrease in student enrollment by 12 to 6 percent. As a result, the proposed Alternative Action is not anticipated to have a significant adverse impact on the Nanuet Union Free School District.

Solid Waste

The additional increase in population is expected to generate an additional 467 tons of solid waste annually, on top of the 1,128 tons under the Proposed Action. Even with this additional increase in tonnage, it is expected that the Clarkstown Transfer Station and Hillburn MRF would have sufficient capacity available.

Infrastructure

Drainage/Flooding (Stormwater)

Under existing conditions, the Nanuet Mall South property consists of 100% impervious surface. Under the expanded adoption of the Proposed Action, the property would have a minimum of 15% greenspace, indicating a total of 85% impervious surface. Correspondingly, this would indicate a decrease of 15% in stormwater volume on the site.

Waste/Wastewater (Sanitary Sewer)

In order to determine the impacts to wastewater, the approximate daily domestic water demand rates from Chapter 4 are assumed. Those rates are 110 GPD/unit for studios and 1-

bedroom units, 220 GPD/unit for 2-bedroom units, and 0.1 GPD/SF for commercial space. For the residential portion of the expanded Proposed Action, 213 of the 245 allowed units would be 1-bedroom/studio units. The remaining 32 units would be 2-bedroom units. Commercial space would account for 213,499 square feet. As such, the residential components would generate 30,470 GPD of daily demand and the commercial components would generate 21,350 GPD of daily demand. This equates to a total daily demand of 51,820 GPD (0.05182 MGD). This additional MGD would still be less than the available capacity at the RCSD1 treatment plant of 28.9 MGD. As such, the additional increase in residential units and commercial space will not have any adverse impact to the RCSD1 wastewater treatment plant.

Transportation

Vehicular Traffic

The TIS conducted for the Alternative Action was not conducted to the level of detail offered previously for the Proposed Action. As such, impacts to vehicular traffic are estimated based on the residential and commercial square footage of the TOD 3 development to be allowed on the Nanuet Mall South Property. Because the new development would replace the existing Nanuet Mall South commercial development, the existing commercial square footage (71,920 square feet) was subtracted from the proposed commercial square footage. As such, the expanded adoption of the Proposed Action would yield 506 units (361,950 residential square feet) and 194,954 net square feet of commercial space (556,904 total square feet). This compares to 952,975 residential and commercial 412,777 square feet (1,365,752 total square feet) of development within the original Proposed Action. Holistically the Alternative Action would increase total square footage by 41%.

Using the TOD 3 trip generation rates, build-out of the expanded adoption of the Proposed Action is expected to generate 1,133 weekday daily trips, consisting of 313 AM and 820 PM trips. For the lettered trip distribution zones, Table 54 below provides the breakdown of trips throughout Nanuet as depicted on Figure 12.

Table 54: Alternative Action TOD Trip Distribution

	Destination						
A	B	C1	C2	C3	D	E	Total
1%	6%	37%	17%	30%	7%	2%	100%

Based on the Alternative Action TOD trip distribution and an assumed 41% increase in vehicular traffic dispersed throughout each of the lettered zones, the following impacts are assumed for each of the five intersections from Chapter 5 and based on analyzed AM and PM peak time periods.

Route 59 and Middletown Road

The Route 59 and Middletown Road intersection corresponds to trip distribution zones C1, C2, and C3. Accordingly, 84% (distributed across C1, C2, and C3) of the additional traffic (41%) will transverse the Route 59 and Middletown Road intersection. As such, the following increases in morning peak hour traffic are expected:

- *Route 59 East to South Middletown Road:* Increase from 83 vehicles to 96 vehicles.
- *South Middletown Road to Route 59 West:* Increase from 82 vehicles to 95 vehicles.
- *Northbound on Middletown Road across Route 59:* Increase from 40 vehicles to 43 vehicles.
- *South Middletown Road to Route 59 East:* Increase from 75 vehicles to 84 vehicles.
- *Route 59 West to South Middletown Road:* Increase from 64 vehicles to 72 vehicles.
- *Southbound on Middletown Road across Route 59:* Increase from 41 vehicles to 44 vehicles.

The following increases in afternoon peak hour traffic are expected:

- *Route 59 East to South Middletown Road:* Increase from 220 vehicles to 255 vehicles.
- *South Middletown Road to Route 59 West:* Increase from 228 vehicles to 264 vehicles.
- *Northbound on Middletown Road across Route 59:* Increase from 111 vehicles to 119 vehicles.
- *South Middletown Road to Route 59 East:* Increase from 184 vehicles to 206 vehicles.
- *Route 59 West to South Middletown Road:* Increase from 160 vehicles to 179 vehicles.
- *Southbound on Middletown Road across Route 59:* Increase from 106 vehicles to 113 vehicles.

Prospect Street and Main Street

The Prospect Street and Main Street intersection would be utilized to access trip distribution zones A, D, and E. Accordingly, 10% (distributed across A, D, and E) of the additional traffic (41%) will transverse the Prospect Street @ Main Street intersection. As such, the following increases in morning peak hour traffic are expected:

- *Main Street Northbound across Prospect Street:* Increase from 80 vehicles to 83 vehicles.

- *Main Street Southbound across Prospect Street:* Increase from 78 vehicles to 81 vehicles.

The following increases in afternoon peak hour traffic are expected:

- *Main Street Northbound across Prospect Street:* Increase from 211 vehicles to 219 vehicles.
- *Main Street Southbound across Prospect Street:* Increase from 206 vehicles to 214 vehicles.

Orchard Street and Main Street

The Orchard Street and Main Street intersection would be utilized to access trip distribution zones D and E. Accordingly, 9% (distributed across D and E) of the additional traffic (41%) will transverse the Orchard Street @ Main Street intersection. As such, the following increases in morning peak hour traffic are expected:

- *Main Street Northbound across Prospect Street:* Increase from 74 vehicles to 77 vehicles.
- *Main Street Southbound across Prospect Street:* Increase from 79 vehicles to 82 vehicles.

The following increases in afternoon peak hour traffic are expected:

- *Main Street Northbound across Prospect Street:* Increase from 194 vehicles to 202 vehicles.
- *Main Street Southbound across Prospect Street:* Increase from 189 vehicles to 197 vehicles.

Church Street and Main Street/Old Middletown Road

The Church Street and Main Street intersection would be utilized to access trip distribution zones D and E. Accordingly, 9% (distributed across D and E) of the additional traffic (41%) will transverse the Church Street and Main Street intersection. As such, the following increases in morning peak hour traffic are expected:

- Negligible increases in traffic are expected during the morning peak hour given the low proportion of vehicles projected to access zones D and E and minimal impacts from the original Proposed Action.

The following increases in afternoon peak hour traffic are expected:

- *Main Street Northbound across Church Street:* Increase from 28 vehicles to 29 vehicles.
- *Church Street to Main Street Northbound:* Increase from 85 vehicles to 86 vehicles.

- *Main Street Southbound to Church Street:* Increase from 87 vehicles to 88 vehicles.

- *Main Street Southbound across Church Street:* Increase from 31 vehicles to 32 vehicles.

South Middletown Road/Main Street and 1st Street/Market Street

It is assumed that the South Middletown Road and 1st Street/Nanuet Mall intersection would incur the full 41% increase in peak traffic conditions given that this would likely be the primary exit for the development. Given that the existing TIS does not take into account the Alternative Action however, those existing figures for this particular intersection would underestimate increases in traffic, even with the 41% increase. As a result, these figures are instead estimated based on the numerical increases in vehicles analyzed throughout the adjacent Middletown Road and Route 59 and Prospect Street and Main Street intersections. Alternatively stated, the total increase in vehicular traffic at these intersections would indicate how much additional traffic is generated from this particular intersection. As such, the following increases in morning peak hour traffic are expected:

- *Market Street to Middletown Road:* Increase from 1 vehicle to 36 vehicles (based on a total of 35 additional vehicles heading along Middletown Road towards the Route 59 intersection).

- *Market Street to Main Street:* Increase from 5 vehicles to 8 vehicles (based on a total of 3 additional vehicles heading along Main Street towards the intersection with Prospect Street).

- *Main Street to Market Street:* Increase from 8 vehicles to 11 vehicles (based on a total of 3 additional vehicles heading along Main Street from the intersection with Prospect Street).

- *Middletown Road to Market Street:* Increase from 1 vehicle to 25 vehicles (based on a total of 24 additional vehicles heading along Middletown Road from the Route 59 intersection).

The following increases in afternoon peak hour traffic are expected:

- *Market Street to Middletown Road:* Increase from 2 vehicles to 68 vehicles (based on a total of 66 additional vehicles heading along Middletown Road towards the Route 59 intersection).

- *Market Street to Main Street:* Increase from 12 vehicles to 20 vehicles (based on a total of 8 additional vehicles heading along Main Street towards the intersection with Prospect Street).

- *Main Street to Market Street:* Increase from 12 vehicles to 20 vehicles (based on a total of 8 additional vehicles heading along Main Street from the intersection with Prospect Street).

- *Middletown Road to Market Street:* Increase from 2 vehicles to 63 (based on a total of 61 additional vehicles heading along Middletown Road from the Route 59 intersection).

Next the impacts to the LOS of each intersection as a result of the expanded adoption of the Proposed Action was studied. Given that a Synchro-based simulation was not conducted with the inclusion of the Alternative Action, impacts to LOS were proportionally estimated based on the changes to LOS between the no-build and Proposed Action scenarios. For the purposes of this LOS analysis, Scenario 2 in which a new roadway grid is constructed throughout the Project Study Area, is assumed. In addition, this LOS analysis considers impacts to those lanes and intersections that would be impacted by the development of the Alternative Action. Similar to the above analysis of increased vehicular traffic, this LOS analysis broadly considers a 41% increase in traffic distributed throughout the different zones. Based on the distribution across each zone (A-E), the 41% increase in traffic is considered as a 41% increase in delay in units of seconds.

The Alternative Action's effects on the AM peak hour are shown in Table 55. It is expected that a total of 6 lane groups are expected to significantly decline, as defined by a drop in LOS letter designation. While this includes the thru and right-turn lane along Route 59 east across Middletown Road, most of the declines are expected to occur at the Main Street and Market Street intersection. This is expected given that the Alternative Action is proposed for the Nanuet Mall South property right off of Market Street. The most significant declines are expected for the Main Street northbound and southbound lane groups through the Market Street intersection which are expected to decline from LOS A to LOS C. Lastly, the Church Street and Main Street lane group is expected to decline from LOS B to LOS C.

The Alternative Action's effects on the PM peak hour are shown in Table 56. A total of 12 lane groups are expected to be negatively impacted, as defined by a drop in LOS letter designation. The most significant declines are anticipated for the Main Street northbound and southbound lane groups through the Market Street intersection which are expected to decline from LOS B to LOS E, and LOS A to LOS F respectively. Of the 12 projected declines in LOS, 6 are expected to decline to LOS F, including the Church Street and Main Street intersection. Given this significant increase in delays, not limited to Route 59, additional remediation in the form of signal and intersection redesigns along Main Street and Middletown Road are recommended. In this case, the Main Street and Market Street intersection would be considered a priority since the current traffic signal and intersection do not yet account for additional on-site commercial and residential development.

Lastly, is anticipated that each development application will require a site plan review by the Town of Clarkstown, which will include an evaluation of existing roadway capacity. As such, any proposed development would need to conduct a traffic impact study and mitigate specific negative impacts.

The following increases in LOS are expected for the morning peak hour:

Table 55: Comparison to AM LOS for Alternative Action

	Lane Group	Delay with Proposed Action (Sec)	LOS	Delay with Alternative Action (Sec)	LOS with Alternative Action
Route 59 Eastbound and Middletown Road	TR	34.2	C	39.5	D
Route 59 Westbound and Middletown Road	L	49.6	D	54.3	D
Middeltown Road Northbound and Route 59	L	61.6	E	71.3	E
Middeltown Road Northbound and Route 59	T	49.3	D	52.4	D
Middeltown Road Northbound and Route 59	R	22.29	C	26.3	C
Middletown Road Southbound and Route 59	TR	45.3	D	49.0	D
Market Street Eastbound and Middletown Road	L	28.6	C	45.5	D
Market Street Eastbound and Middletown Road	T	43	D	43.0	D
Market Street Eastbound and Middletown Road	R	29.6	C	35.6	D
Market Street Westbound and Middletown Road	TR	47.9	D	47.9	D
Main Street Northbound and Market Street	L	8.1	A	20.8	C
Main Street Southbound and Market Street	R	6.9	A	20.7	C
Prospect Street Eastbound and Main Street	L	50.8	D	50.8	D
Main Street Northbound and Prospect Street	LT	12.6	B	15.3	B
Main Street Southbound and Prospect Street	TR	11.2	B	17.2	B
Church Street and Main Street	LTR	15.6	B	24.6	C
Main Street Northbound and Church Street	T	14.9	B	15.9	B
Main Street Southboud and Church Street	T	9.7	A	9.7	A
Main Street Southbound and Church Street	L	9.4	A	9.4	A

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service
Indicates notable deterioration in operating conditions

The following increases in LOS are expected for the morning peak hour:

Table 56: Changes to PM LOS for Alternative Action

	Lane Group	Delay with Proposed Action (Sec)	LOS	Delay with Alternative Action (Sec)	LOS with Alternative Action
Route 59 Eastbound and Middletown Road	TR	65.1	E	96.7	F
Route 59 Westbound and Middletown Road	L	65.4	E	84.3	F
Middeltown Road Northbound and Route 59	L	105.9	F	165.3	F
Middeltown Road Northbound and Route 59	T	59.4	E	72.7	E
Middeltown Road Northbound and Route 59	R	27.2	C	38.5	D
Middletown Road Southbound and Route 59	TR	77.6	E	102.9	F
Market Street Eastbound and Middletown Road	L	28.6	C	112.6	F
Market Street Eastbound and Middletown Road	T	35.5	D	35.5	D
Market Street Eastbound and Middletown Road	R	25.1	C	37.8	D
Market Street Westbound and Middletown Road	TR	65.2	E	65.7	E
Main Street Northbound and Market Street	L	15.6	B	67.7	E
Main Street Southbound and Market Street	R	9.3	A	85.0	F
Prospect Street Eastbound and Main Street	L	44.5	D	44.5	D
Main Street Northbound and Prospect Street	LT	24.8	C	43.6	D
Main Street Southbound and Prospect Street	TR	17	B	29.7	C
Church Street and Main Street	LTR	56.6	E	88.9	F
Main Street Northbound and Church Street	T	18.3	B	20.7	C
Main Street Southboud and Church Street	T	14.3	B	14.3	B
Main Street Southbound and Church Street	L	13.1	B	13.1	B

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service
Indicates notable deterioration in operating conditions

Nanuet Train Station – Parking

The additional increase in commercial and residential development under expanded adoption of the Proposed Action would increase total average peak period parking demand from 1,449 under the original Proposed Action, to 2,119 based on the methodology used in Chapter 5. However, as with the original Proposed Action, there would be parking for each residential unit. In addition, developers and businesses would be required to provide on-street parking in order to address commercial parking needs.

Bicyclists & Pedestrians

Transit-generated pedestrians assume a 41% in total traffic. As such, the Alternative Action is expected to generate 488 peak daily trips, of which 73 will consist of pedestrian trips. Given the location of the Alternative Action, 100% of these trips would involve crossing Prospect Street. Since a Synchro simulation of trip generation for the Alternative Action was not conducted, the breakdown of morning and afternoon peak trips is assumed to be the same as the total breakdown for the original Proposed Action of 45% morning trips and 55% afternoon trips. Based on this proportion, 33 morning pedestrian trips and 40 afternoon pedestrian trips would be generated. Assuming the hourly breakdown of trips, the following increases in morning and afternoon peak hours are expected:

Table 57: Alternative Action Additional Prospect Street Pedestrians by Peak Hour

Additional Morning Pedestrians by Hour	
5:30 AM - 6:30 AM	12
6:30 AM - 7:30 AM	12
7:30 AM - 8:30 AM	9
Additional Afternoon Pedestrians by Hour	
4:30 PM - 5:30 PM	8
5:30 PM - 6:30 PM	20
6:30 PM - 7:30 PM	12

The additional Prospect Street pedestrian figures translates to a peak morning 15-minute factor of 3 additional pedestrians and a peak afternoon 15-minute factor of 5 additional pedestrians. This translates to an estimated total of 62 peak 15-minute morning pedestrians and 137 peak 15-minute afternoon pedestrians in 2030 based on the methodology in Chapter 5.

As for non-transit-generated pedestrian trips, the additional increase of 306 units is also expected to generate an additional 12 daily non-transit pedestrian trips, given the assumption of 4 daily pedestrian trips per 100 dwelling units.

The additional increase of 306 units is expected to generate 2 additional bicycle trips, on top of the 4 bicycle trips expected to be generated under the Proposed Action.

Public Transportation

Impacts as a result of the Alternative Action are estimated for both commuter rail and Transport of Rockland bus service. The increase in commuter rail ridership is assumed to be 15% of the 41% increase in vehicular traffic. This corresponds to 73 peak transit trips which are distributed on Metro-North Railroad. As such, the additional riders per peak hour train and corresponding impacts to total boardings is provided in the following table:

Table 58: Impact of Alternative Action to Metro-North Ridership

Train	Total Projected 2030 Boardings with Alternative Action	% of Peak Hour Boardings	Additional Riders	Total Projected 2030 Boardings
Inbound Morning				
6:21 AM to Hoboken	215	37%	27	**242**
7:43 AM to Hoboken	128	23%	17	**145**
7:16 AM to Hoboken	88	15%	11	**99**
Other	156	26%	18	**174**
Outbound Afternoon				
5:32 PM to Spring Valley	176	42%	31	**207**
4:39 PM to Spring Valley	84	20%	15	**99**
6:18 PM to Spring Valley	52	12%	9	**61**
Other	110	26%	18	**128**

Given these figures for inbound morning train capacity, it is expected that there is sufficient capacity to absorb those extra passengers from the Alternative Action. Capacity issues would still however arise beyond the Westwood along the Pascack Valley Line. During the afternoon outbound commute, the ability of Nanuet passengers to receive a seat on a peak hour train would still vary based on factors such as the number of passengers travelling to and from other train lines, including based on those who transfer at Secaucus Junction.

The additional increase in population is expected to generate an additional 46 passengers to Route 59 and Route 93 on a daily basis. It is assumed that 40 of these passengers would use Route 59 and 6 would use Route 93. On an hourly basis, this would translate to approximately 2 passengers per hour for the Route 59 service (based on service operated on weekdays between 6:00 AM and 12:45 AM), and approximately 1 passenger every 2 hours for the Route 93 service (based on service operated on weekdays between 8:00 AM and 11:45 PM). The additional increase in population would also result in an additional approximately less than 1 passenger on TRIPS service on a daily basis. It is expected that both Transport of Rockland and TRIPS would be able to absorb this additional projected ridership given sufficient capacity.

Community Character

The site of the proposed rezoning expansion currently contains a strip mall, and parking with limited landscaping or visually appealing features. Under realization of the proposed zoning, the site would be subjected to those standards associated with TOD-3. Under a full buildout, the site would consist of attached mixed-use buildings of up to 4 stories, with a maximum height of 45 feet, including setbacks of 15 feet from the property line for the final story. From the perspective of drivers and pedestrians, this would create the perspective that each building is actually 3 stories tall. At the street level, pedestrians and drivers would visualize a combination of landscaping and commercial space.

8.0 Other Impacts

8.1 Growth Inducing Impacts

As indicated in this analysis, a full buildout of the Proposed Action is expected to add 1,226 new residents. The buildout would add 1,734 new residents if the alternative action of expanding the zoning to include the Nanuet Mall South property is considered. The full buildout is also expected to add 412,777 square feet of commercial space, or 679,651 square feet of commercial space if the alternative action of expanding the zoning to include the Nanuet Mall South property is considered. It is expected that the increase in population would create a long-term demand for goods and services. In addition, the increase in commercial space would be expected to generate activity from other nearby municipalities and neighborhoods as well, given the positive effects of clustering businesses.

New residents within the Nanuet TOD would utilize both new and existing retail, personal service, and other commercial uses located within the vicinity. The Nanuet central business district, which currently struggles to be a vibrant neighborhood, would greatly be enhanced by adjacent and on-site development. A considerable portion of the expected spending would benefit those local businesses including supermarkets, convenience stores, eateries, convenience stores, gas stations, and beauty salons, as well as additional on-site businesses that would locate to the TOD.

Construction of the Nanuet TOD would create a short-term increase in construction jobs and business. It is anticipated that a sizable percentage of the construction workers would come from Rockland County and other nearby counties. Those workers would have a positive impact on the local economy by utilizing businesses in the vicinity for food service, convenience products, and gasoline.

8.2 Unavoidable Adverse Impacts

Buildout of the Proposed Action is expected to generate some adverse impacts that cannot be avoided regardless of the mitigation measures previously proposed. These impacts are broken out into short-term and long-term.

Short-Term Impacts

Short-term effects are expected to include the following:

- The presence of construction and delivery vehicles on site and on the surrounding roads as a result of site work and building construction activities.
- The localized increase in noise levels due to operation of construction vehicles and construction activities.

Long-Term Impacts

Long-term effects are expected to include the following:

- The overall increase in impervious surface throughout the Project Study area is expected to increase by 17% which may lead to nominal increases in urban heat island effects in the area.
- Adoption of the Proposed Action may spur demand for similar projects elsewhere throughout Clarkstown and Rockland County on the part of developers, which would potentially further impact community and environmental resources.
- The projected increase in residential population and commercial square footage will inevitably result in increased energy, resource, and service consumption in the Project Study Area.

8.3 Irreversible and Irretrievable Commitment of Resources

The man-made resources that will be consumed and made unavailable for future use includes but is not limited to the following materials:

- Lumber and wood paneling
- Soils for fill
- Concrete
- Masonry block
- Steel and Iron
- Asphalt
- Glass
- Insulation Materials
- Gypsum board
- Electrical supplies
- Plumbing supplies
- HVAC supplies
- Telecommunication supplies

- Flooring
- Stucco and Siding
- Brick and Mortar
- Paint products

The use of construction equipment will additionally result in the consumption of fossil fuels and energy sources. Under buildout of the Proposed Action, residences and commercial businesses will utilize fossil fuels and energy to provide cooling, heat, lighting and other needs.

8.4 Impacts on the Use and Conservation of Energy

It is expected that buildout of the Proposed Action would contribute to the consumption of energy. While the Proposed Action would result in greater total energy use for the Project Study Area when compared to existing conditions, this energy use would be more efficient. This would be the case for a number of reasons:

- Dense, multi-family apartments in transit-friendly neighborhoods can be up to 64% more energy efficient than conventional automobile-oriented residences.[8]
- Development of residences and businesses around the Nanuet Train Station will encourage use of commuter rail service, as opposed to automobiles. Overall, the denser make-up of development will be more conducive to transit use.
- Development with the inclusion of connected sidewalks and potentially including bicycle amenities will discourage use of automobiles for short trips, especially given the setting of the Project Study Area adjacent to the Nanuet central business district and the Shops at Nanuet.
- Development occurring within the Project Study Area will utilize significantly more energy efficient materials compared to existing conditions.
- Development of mixed commercial and residential uses will create a more compact community, reducing the need to access goods and services at other locations.

As development of the Proposed Action commences and progresses, it is expected that the beneficial impacts on the use and conservation of energy would continue to grow. Each of these outlined benefits is also expected to be permanent once residences and businesses relocate to the TOD.

[8] https://www.eia.gov/todayinenergy/detail.php?id=11731